The CU Online Handbook, 2011

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Introduction

Patrick R. Lowenthal

During the past few years, online learning has moved from a fringed activity to a key component in nearly every universities' long-term strategic plan. For instance, the most recent Sloan-C report reveals that nearly a third of all university courses are taken online (Allen & Seaman, 2011). In fact, in 2010 over six million students took at least one course online. We have seen strong growth at the University of Colorado Denver of the years as well. For instance, in 2009 13,245 took at least one online or hybrid course. That number increased by 9.7% to 14,666 in 2010. It then increased another 7.58% to 15,869 in 2011. In fact, in 2011, 32.89% of students at our institution took at least one online or hybrid course which suggests that currently a third of our students are taking online or hybrid courses.

If online learning continues to grow 10% or more each year as it has been, it will not be long before 50% or more of the courses taken at universities will be completed online. And by that time, students will likely have to complete a number of courses online in order to graduate. Because of changes like these and the overall growth of online learning, more and more emphasis is being placed on ensuring that the courses being offered online are of the highest quality. From Sloan-C's 5 Pillars (see: http://sloanconsortium.org/5pillars) to the Quality Matters Program (see: http://www.qmprogram.org) to other home-grown initiatives, universities across the country are interested in finding ways to make online learning not simply as good as face-to-face instruction, but the best it can be!

Here at CU Online, we have strived to implement a number of different programs and initiatives over the years to help faculty design, develop, and teach the highest quality courses possible. *The CU Online Handbook* is just one example of one of these initiatives.

The CU Online Handbook was conceived as an opportunity to let faculty share some of the great things that they are doing in their online courses across our university. The first *CU Online Handbook* (Lowenthal, Thomas, Thai, &Yuhnke, 2009) was published in 2009 (see: http://cuonline.ucdenver.edu/handbook2009). Over 200 copies were printed and distributed among faculty and staff. *The CU Online Handbook* is also available online as an e-book. The site has had over 3,000 page views since it was published. While we are thrilled with the reception we got from the first *CU Online Handbook*, we set out with this second edition to have more short and accessible articles with even more contributors. Themes throughout this edition of *The CU Online Handbook* focus on how faculty can connect and build relationships with students and how technology can help in this process.

Whether you have been teaching online for years or are just beginning, in this edition of *The CU Online Handbook*, we hope that you can pick up some new ideas to help improve the quality of the online courses you design, develop, and teach.

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Part 1

Trends and Issues with Online Learning

Chapter 1

Creating Standards for Online Courses

Kathleen L. Pounders

We have all heard the reports about how much online learning is growing year to year. For instance, Sloan-C reports that online learning grew 21% in 2009 alone while higher education in general only grew 2% during the same time period (Allen & Seaman, 2010). However, despite growth like this, faculty remain skeptical of online learning. In the fall of 2008, questions were beginning to be raised in the College of Liberal Arts and Sciences at the University of Colorado Denver about the quality of the online courses taught in the college. As a result of these questions and the overall skepticism about online learning, I was asked by the Department of Communication to review the literature on online education and research best practices in online pedagogy.

The report that resulted from my research addresses several myths about online education, such as "online education is not as effective as face-to-face instruction" and "online education cannot effectively teach communication courses." Citing studies by Bernard, et. al (2004), Brooks (2009), Meyer (2002, 2004), Phipps & Merisotis (1999), among others, I illustrate in this report that the literature on online learning suggests that online learning is as good as if not better than face-to-face education. The report culminates in the identification of some *minimum* standards of quality that all online courses in the Department of Communication should meet. [A copy of the report can be downloaded at online]

In the following paragraphs, I outline these minimum standards in hopes of encouraging other faculty, departments, schools and/or colleges to adopt a similar set of standards.

A Minimum Set of Standards

Faculty at the University of Colorado Denver, like faculty elsewhere, value diversity. They tend to resist the evils often associated with standardization, while at the same time valuing good teaching! While my colleagues and I in the Department of Communication do not want "clones" of our online courses and value greatly the nuances that faculty bring to each course they teach, we believe there should be certain *minimum* standards that each online course should meet in order ensure quality pedagogy and consistent design.

Therefore, in the Fall of 2009, the Department of Communication created a new position called the "Online Pedagogy Coordinator." I have had the privilege serving in this role since its inception. As the Online Pedagogy Coordinator, I am responsible for reviewing all online courses in our department to ensure that they meet the minimum standards established by the department. Since the Spring of 2010, I have been ensuring that every online course offered by the Department of Communication meets the following *minimum* standards:

Department of Communication *Minimum* Standards for Online Courses*

Syllabus

- ☐ List overall course outcomes
- ☐ Explain your specific grading policies

Course Materials

- ☐ All readings and assignments should be contained within the course management system (CMS); students shouldn't be directed to the leave the CMS for course readings. Direct e-links to outside articles should be provided.
- ☐ Include a section under the Course Home to provide tips for succeeding in your online course.

Weeks / Units

- ☐ List the learning objectives for each week/unit
- ☐ Provide references at the end of each week / unit

Threaded Discussions

- ☐ Include regular threaded discussions throughout the semester
- ☐ Establish instructor's presence in the discussions in a "woven" manner

Grading

- ☐ Include grading rubrics for all assignments and discussions

Submission of Assignments

- ☐ All assignments should be turned in using the Dropbox. Assignments should not be submitted by email.

Office Hours

- ☐ Conduct virtual office hours to answer general course questions

Welcoming Environment

- ☐ Include a welcome page on the homepage of the LMS

Design

- ☐ Incorporate graphics to make pages more visually appealing
- ☐ Ensure that all course materials have a professional and consistent appearance (e.g., color choice, font, background colors)
- ☐ Use textboxes to provide strong contrast for all units and announcements

*A printable version of these standards can be accessed online.

Implications and Concluding Thoughts

The instructors in the Department of Communication have embraced these standards. In fact, since implementing these standards, my colleagues and I have had several meetings to share information and ideas in order to ensure the quality of our online courses. The list of minimum standards has become a "jumping off" place for us to use as we discuss and improve our courses. For example, we have shared ideas

about the use of video to supplement course information, how to conduct peer reviews of student work, and how to set up and manage group projects.

The word is getting around and other departments in the College of Liberal Arts and Science are asking about these standards. While these standards may seem to be a very elementary and an overall minimal list, students have reported that they have taken many online courses that did not even meet these very minimum standards. Therefore, we recommend for other departments, schools, and colleges to construct their own list of minimum standards to ensure that all students taking online courses receive a consistent experience. Currently the University of Colorado Denver's Faculty Ethics Committee is investigating how to ensure that all online classes meet minimum standards. One of the possibilities the committee is considering is the creation of more "Online Pedagogy Coordinator" positions—either in each department, or in each school. Another possibility the committee is considering is requiring that all online instructors receive certification in online pedagogy and design before teaching online for the University. With the University at large initiating an investigation into how to ensure quality and consistency across all online courses, it is time for us to construct at least a list of minimum standards within each department and provide a means to ensure that these minimum standards are met.

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Bio

Kathy Pounders earned her Master of Arts in Communication at the University of Colorado Denver. She is currently working on a second Master of Arts in Informational Technology Pedagogy and Design through the School of Education and Human Development at the University of Colorado Denver. In the Fall of 2009 she was appointed to the position of Online Pedagogy Coordinator in the Department of Communication at the University of Colorado Denver. Kathy is a member of the University of Colorado Denver Online Faculty Advisory Committee. Prior to joining the world of academia in 1993, Kathy worked as Training and Development Manager in the business world.

Chapter 2

"You Can Do it in Your Jammies" and Other Things We Should *Never* say about Learning Online

Patrick R. Lowenthal
&
Joanna C. Dunlap

I'm getting married and going on a two-week honeymoon during this course. I won't have internet while I'm gone. That's not a problem, is it?

Faculty and students often think about things differently. When faculty think about teaching online (especially those who have never done it), they often think about how teaching online is harder, takes longer, and involves more work.[1] However, when students, especially first time online students, think about learning online, they tend to think of things like:

- Not having to go to campus to attend a class,
- Working on their coursework in their jammies,
- Coursework not getting in the way of their busy lives,
- Working on their coursework (only) when it's convenient,
- Completing their coursework at their own pace, and
- Not working that hard to receive a good grade.

Now there are exceptions to this. And many might argue that some of the ways students think about online learning—such as the first and second point above—aren't necessarily bad outcomes of participating in an online course. We argue however in this chapter that thinking of online learning in these terms leads to student expectations about the online-course experience that are over-simplified and inaccurate. Let's face it—often online courses do get in the way of busy lives, aren't convenient, offer very little choice in terms of pacing, and are just as difficult *if not more* difficult than an on-campus course.

Online education grew out of the correspondence tradition of distance education, which was characterized by things like the faculty and the student being separated by space and time or the student progressing through the course at his/her own pace. Therefore, it is not surprising that certain defining characteristics of early forms of distance education have stuck with us over the years.

To be fair, students haven't derived this inaccurate view and expectation of online education on their own. One—if not the central—reason why students continue to think of online courses as easier, convenient, malleable, and so on is directly related to how colleges and universities, both for profit and non-profit, market their online programs. In other words, the way postsecondary institutions promote their programs set expectations about the online learning course experience that may be very different than what students will actually experience once enrolled.

[1] Faculty who have extensive experience teaching online, though, are quick to dispute this point. Teaching online doesn't have to be harder, take longer, and involve more work (see Dunlap, 2007). But in our experience often this is how faculty think about and talk about teaching online.

Take for instance the following quotes that come from various college and university website descriptions of the online-learning experience they offer to students:

- …The classroom is wherever you are. The class schedule adjusts to fit your schedule.
- …Learning experience that's both customized and flexible, so you can study on your schedule, on your terms.
- The only difference [between the on-campus and online experience] is that as an online student, you can study 24/7 from home, the office, or an Internet café—anywhere you can find a connection.
- Finish your degree without leaving your job or other responsibilities.
- Access course content at your convenience—24 hours a day, seven days a week.
- …The credit and education are the same, even the professors and faculty are the same. The only difference is that it's online, on your terms… allowing you the freedom to spend time on what matters most to you.
- We offer *real* degrees designed to fit into your *real* life. Our … multiple start dates allow you to start when the time is right for *you*. The convenience of 100% online classes is ideal for the adult learner, particularly for those who work full-time, have families and are unable to get to a traditional campus. You really can live your life while completing your bachelor's degree or earning your master's degree.

What makes these marketing statements even more incongruent with reality is that the same institutions also claim that their online courses and programs provide students with *cutting-edge curriculum, [where students] will gain the real-world experience [they] need to succeed in today's global marketplace*, using *a collaborative learning environment* in which they *interact with classmates from around the world* leading to *immediate, real-world application* of their coursework—all outcomes that cannot be effectively achieved if the online coursework is individually paced and so flexible that it seamlessly fits into each student's busy schedule. Still not convinced of the false expectations of the online-learning experience promoted by postsecondary institutions, then watch the following video:

http://www.youtube.com/watch?v=OISn3TXFxlI

We could go on, but we suspect you get the point. This type of language should be familiar to most. In the following paragraphs, we argue why this type of language is

problematic and how it places constraints on faculty and instructional designers in colleges and universities across the country, and finally conclude with what we should do about it!

How the Message Shapes Students' Perceptions and Expectations

Language is intricately connected to thought and shapes how we think and what we do (Vygotsky, 1962, 1978). The way we use language to inform and communicate influences perception and expectations (White & Lowenthal, 2009, 2011). Therefore, postsecondary institutions need to carefully consider the language used to market and describe online learning.

The following themes can be identified in the examples listed in the previous section:

- Immediate—begin when you want; 24/7
- Convenient—take courses when you want; fits your schedule
- You can do it all—busy life, no problem; online learning can fit right in
- Same as on-campus programs—online courses are no different

These themes present in many postsecondary online-program marketing materials send a very strong message of what students should expect from an online-learning experience. Although catchy and enticing, they are very harmful in their inaccuracy; these messages set both students and faculty up for failure as they navigate two very different sets of expectations about the online-course experience.

Immediate

Because of my work schedule, I will be working on my online coursework after 10pm each night. You're available to answer questions then, right?

Students begin online programs with an expectation that everything is going to be 24/7. For better or for worse, the modern university is far from being a 24/7 environment. While some universities do a better job than others with being responsive to students' needs, there is not a single university that we know of that can truly be described as 24/7. Sure, Universities are each trying to automate as much as possible and to put everything they can "online" in some form. The bottom line, though, is that from the library to the registrar to advising, they all have some time each day in which a live person is not available to answer students' questions. But it doesn't just stop there. The problem is exasperated when students with these 24/7 expectations begin taking online courses.

While faculty strive to be as responsive as possible, they are never available 24/7; it is not uncommon for students to wait 24 – 48 hours before hearing back from faculty. This can become maddening to a student who is expecting an immediate answer to his or her question.

Convenient

I will just work on my online coursework when I have time…in between the cracks. That'll be OK, right?

In addition to being 24/7, students also are led to believe that online learning is convenient. This propagates a myth that students can complete their coursework when

they want to, when in fact, most online courses have a specific sequence and structure (often using a week-by-week format); and schedule with specific deadlines for activities, homework, and projects. Further, because of this myth students are led to believe that they do not have to do anything that is inconvenient for them. For instance, students are often bothered when they find out that in many courses they might be expected to login and take part in online discussions 3-4 times in a given week, or that they need to participate in a synchronous activity at particular time on a particular day. Unfortunately, students' negative reactions to these unexpected activities may lead faculty to avoid otherwise appropriate instructional strategies.

You Can Do It All

I work 50+ hours a week, travel a lot for work, and coach my two daughters' soccer teams on the weekend. Taking two online courses won't be a problem, right?…

Much of the online-program marketing campaigns lead students to believe that even if they have busy lives, they can still find time to fit in college—on their own time. The reality is that completing a college degree takes significant time and effort, regardless of the delivery format. For instance, a 3-credit 15-week long online graduate course will often require anywhere from 9-12 hours of time each week. This breaks down to about two hours a night five days a week. If a student is taking two graduate-level online courses, then the workload is four hours a night five days a week. While it is true that most online courses are asynchronous and enable students to complete the coursework at any time of the day during a given week, there is only so much time in a day. If students work full time and have families then that means they will be spending almost all of their free time on their coursework. This is tough but this is the nature of being a full-time student with a full-time job. We need to help students understand the commitment it takes to be online students—especially online students with busy lives.

Same as On-Campus Programs

If my online program is the same as the one on-campus, then all I have to do is show up in the course shell once a week and listen to a lecture, do a few activities, and take a quiz. I know how that works, so no big deal…right?

Related to this theme, students actually get two messages. The first is that online courses are no different than on-campus courses. When postsecondary institutions share this message in their marketing materials what they mean is that students can expect the same program plan and courses (e.g., same learning objectives) leading to the same degree. Sometimes it also means that students will be taught by the same faculty teaching the on-campus version of courses. But, it rarely means that students will experience the same pacing or instructional activities. Although there are more and more synchronous communication tools available (e.g., Adobe Connect) that allow for the real-time interactions students are used to in on-campus courses, text-based asynchronous communication tools (e.g., threaded discussion forums) are still the primary tool used for student-instructor and student-student interaction and communication in online courses. Due to the very nature of these tools (i.e., text-based and asynchronous), online courses have very different pacing and use very different instructional strategies than on-campus courses (although, faculty are increasingly using

these types of tools in their on-campus courses to provide additional support and learning opportunities to students in-between on-campus class meetings).

The other message students get from the "same as on-campus programs" theme is that they do not need to be concerned about their technology and internet access and skills. Because of this message, some students may not realize the need for constant and consistent access to an internet-capable (and connected) computer, and that they need to already possess intermediate computer and internet skills.

Conclusion / Implications

So where does this leave us? Many of you might feel that there isn't much you can do about how your college or university markets online programs. While this is likely true to some extent, it is important that those on the front lines help administrators and marketing personnel accurately promote online programs. This involves learning about each program and the nuances of the programs. (For examples of marketing materials that establish more accurate student expectations, see http://cps.regis.edu/online-degree-rightforyou.php or http://www.jiu.edu/about/e-learning/online-learning-quiz).

But even more importantly this calls for effectively communicating expectations for your online courses to students, ideally before courses start. To be successful, students need clear information on what is expected of them and how they can be successful in your online courses:

- Provide them with a complete reading and assignment due date schedule at the start of the course. This gives them an opportunity in the first week of class to map course deadlines to their work and family calendars.
- Provide them with a general formula for the number of hours they should anticipate spending on coursework each week.
- Provide detailed weekly agendas that indicate what they need to complete and when they need to complete it.
- Make sure they know when you are available for questions, and how they may reach you. If it takes you 24 hours to respond to posts and emails, or you have a policy of not responding to posts and emails on a certain day (e.g., Sunday), make sure they know your schedule.
- Don't assume that students—even those under the age of 25—know how to use technology or how to use it to support academic and professional endeavors. Be prepared to provide them with resources (e.g., tutorials) and support.

Online courses and programs are an important part of a full-service postsecondary institution's offerings. Students who would otherwise not be able to pursue a degree can now do so because of online courses and programs. Sometimes colleges and universities get caught up in the excitement of what it means to help people achieve their goals via online programs, and oversell their online programs in their enthusiasm (and, sometimes they do this as well because they are building a market for the programs or are considering how to compete with the marketing messages of competitors).

Ultimately, this overselling hurts not only students but also faculty and staff. Faculty and staff are regularly challenged with realigning misperceptions and inaccurate expectations as well as overcoming initial confusion, disappointment, and frustration that students often begin online programs with. But, with adjustments to marketing messages, and clear up-front communication at the program and course level, online learning can be a highly effective—and engaging—experience for students. And,

sometimes—although let's keep it a secret initially—students can even do some their online coursework in their jammies.

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Bio

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Chapter 3

The Power of Visuals and Hands-On Play with Online Learning

Elizabeth C. Conner

I have been teaching online for a number of years now. And over the years, I have learned a lot about what works *and* what does not work in the online classroom. For instance, for some time now I have been a strong advocate of the "Montessori approach" to learning. This approach essentially calls for students to "get their hands dirty"—meaning among other things that students should engage in hands-on play. Hands-on play is one thing I have found over the years that works well in almost all education environments. As a result, I strive to include hands-on play in all the courses I teach online.

However, despite my years of experience teaching online, I strive not to get stuck in my old ways of doing things. This last year I learned a new lesson of what works when teaching online as a result of having my course audited by an instructional designer at eCollege (a process I recommend everyone go through). That is, I learned about the power of visuals when teaching online. In the following paragraphs, I am going to elaborate on each of these lessons learned—that is, the power of hands-on play and the power of visuals in the online classroom—in hopes of helping other faculty find ways to improve the courses they teach online.

Hands-on Play

I teach accounting. And as an accounting instructor, I have found that the standard approach to introducing beginning accounting concepts is intimidating at best. This approach involves introducing students to nebulous accounting equations while at the same time introducing them to a whole new language. Students often begin to "drown" trying to grasp not only the vague math concepts but also the new language of accounting. In fact, these vague math concepts and new language often turn many students off from even considering majoring in business within the first few weeks of the course.

Early on though I knew there had to be a better way of introducing accounting. I began reflecting on my own children's pre-school years in a "Montessori-based" elementary school. The pre-schoolers would explore their classroom environment and learn through hands-on play. For example, to learn mathematics students were given an abacus. The abacus helped them visually see how, for example, 3 x 3 = 9 by moving the beads in rows 1 through 3 across the board to fill the area with 3 rows of 3 beads. I decided to incorporate this hands-on approach into my accounting course. Instead of throwing a nebulous math equation and a bunch of foreign words at my students, I decided to do something fun and engaging.

I developed an accounting game that introduces the beginning concepts of accounting in a way that is engaging and one in which players collaborate during game play. More specifically, "The Balancing ACcTTM" board game introduces the language of business "accounting" through a visual hands-on experience. Players learn how companies transact business with their bankers, customers, and suppliers.

Why a game? Well many of my students grew up playing games. For instance, today's college students grew up with "over 10,000 hours playing video games, over 200,000 emails and instant messages sent and received; over 10,000 hours talking on digital cell phones" (Prensky, 2001, page 1). From a learning standpoint, games can be intrinsically motivating and can adapt to different styles of learners, as well as different learning styles (Nemerow, 1996). Games also create an interactive learning experience by transforming inactive learning material into learning episodes where the learners are active players and participants (Sugar & Takacs, 1999).

While creating an accounting game took a lot more time than just settling on a lecture that I've done over and over, the results over the years have been profound. I have found that in less than two hours my students grasp accounting and business concepts that in a traditional accounting course can take at least two weeks to learn.

If you are thinking of using games in your online course, I recommend reading "Games to Teach By" (Mungai, Jones, & Wong, 2005). I also encourage you to step out of your comfort zone when it comes to teaching. I have found that hands-on play has transformed my classroom over the years. But recently I learned that there is still much I can do with my online courses—specifically with regards to visuals.

Use of Visuals

As I mentioned earlier, I teach accounting. As you can imagine, accounting tends to be presented in a primarily text-based format. My online courses for years have followed a consistent format each week:

- Introduction
- Assignment
- Content (i.e., the elaboration of specific assignments)

Each of these sections of my courses have been predominantly text-based. After having my course audited by an instructional designer at eCollege I realized that my students' learning experience could be greatly enhanced if I incorporated visual images and used them consistently throughout each week in the course.

Based on this feedback, I began to incorporate images in each week of my online courses. The following is an example of how I changed my courses through the use of images.

Before

Do you know the joke about the rope?
Aw, skip it…

Read Chapter 8.

Go through my lectures for Chapter 8.

Work end-of-chapter exercises / problems: E: 2,5,12, 14, 23; P: 3, 4, 11

Remember that I have uploaded the solutions to these exercises / problems at the Course Home.

Quiz / Homework: Complete the Quiz / Homework by the due date indicated on the schedule for this week. You can go in and out of this quiz as many times as you'd like. Just remember to save your work before exiting.

After

After
Do you know the joke about the rope?
Aw, skip it…

Read Chapter 8.

Go through my lectures for Chapter 8.

Work end-of-chapter exercises / problems: E: 2,5,12, 14, 23; P: 3, 4, 11
Remember that I have uploaded the solutions to these exercises / problems at the Course Home.

Group Exercises / Individual and Group Submissions

In the respective content areas, I've included these same images. The consistent and repetitive use of these images has really helped tie the material together and has helped make the Week's content flow smoother. I also have to say it has been a lot of fun coming up with images and they have made my course weeks more visually pleasing and have actually put some spark into the links. I haven't stopped though with static images. I have begun creating short video clips via Jing to introduce the Week's material and assignments.

Concluding Thoughts

As an accounting instructor, I have to admit I am just beginning my quest for adding visuals to my online courses. I'm excited though about the power they can play in not only motivating students in learning and retaining the course's content but even more so in helping me deliver the course material in a fun, effective way.

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Bio

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Chapter 4

Embracing the shift: Edupunk, Teaching Naked, Social Media and making it all work in the classroom

Howard Cook

Access to information is changing—as a result, learning is changing. Social media tools are pressuring the privileged learning spaces of higher education by democratizing knowledge and putting power in the hands of the individual. Our students can now acquire knowledge on their own and under their own terms. They live in a world where access to information has changed everything. As educators, if we do not recognize this shift and adapt, we will be left behind!

Technology changes students' modes of thought and their ways of learning. Students today navigate between multiple technologies. Wikis, Facebook™, Delicious™, Twitter™, Flickr™, YouTube™ are some of the tools that are changing how our students learn, the way they network with each other, and the way they share information. Clearly tools like these are changing the playing field for educators. If we are not careful, tools like these could replace us as educators. To understand the shift that is taking place, we must assess higher education's role in today's digital society, what web 2.0 tools and social media have to offer as a way of accessing knowledge, and how we as educators are needed as navigators and mentors in this new world. In the following pages, I describe how I have embraced this shift and tried to make it work in my classroom.

Edupunk

Perhaps the best place to begin is "Edupunk." "Edupunk"—a term coined by educator Jim Groom—is simply a Do-It-Yourself (DIY) attitude toward education that aims to avoid mainstream tools (e.g., PowerPoint and Blackboard) opting instead for a "student-centered, resourceful, teacher or community-created rather than corporate-sourced, democratic and progressive" approach to education (Madsen-Brooks, 2008). According to Norman (2008), Edupunk is

> "about a culture, a way of thinking, a philosophy. It's about DIY. Lego is edupunk. Chalk is edupunk. A bunch of kids exploring a junkyard is edupunk. A kid dismantling a CD player to see what makes it tick is edupunk." (Norman, 2008)

In other words, Edupunk is hands-on learning that begins with the learner's interest and makes them relevant to today's digital culture by using the very tools of that culture. Edupunk embraces the tools and culture already in use by students to augment the classroom experience but also establish the role of the teacher as a guide and mentor for students throughout their educational experience.

The Amped Classroom: Edupunking the DAC

I teach in the Digital Animation Center (DAC) where we educate artists that are on the bleeding edge of using technology in their creative practice. And while I consider myself a power user and early adopter of technology, all of the students in the DAC are power users. As power users, they have access to the very same ocean of knowledge

their faculty in the DAC use to prepare for class. So the obvious question is, if our students have access to the same knowledge as their instructors, then why are we there?

The old paradigm for teaching was the result of the scarcity of, or lack of, access to knowledge. The teacher therefore played a central role as the gatekeeper of knowledge. But access to knowledge has fundamentally changed. This radical shift in who, when, and how, knowledge is accessed, forces us as educators to think/rethink how we embrace technology in our teaching practice.

One way we have tried to embrace this change in the DAC is in our DAC capstone experience. Films, particularly animated films, are complex. They require a small army of artists with very specific skills working together. As a result, we intentionally mimic the collaborative workspace of the film industry by relying heavily on collaboration in our coursework. Our curriculum culminates with a three semester capstone series of courses in which the entire senior class forms an in-house studio and creates a high-production value short film as a collaborative, creative team. Social media technology and its ability to connect the students (and to a lesser degree the instructors) has proven to be a fulcrum with which our students effectively collaborate with each other to create a short film. Through utilizing social media, we have tried to embrace a student first edupunk perspective in our courses.

Teaching Naked: When Pretty Slides Aren't Enough

But utilizing social media and having students collaborate with each other doesn't really address the important role instructors can and should play in 21st century classrooms. In the DAC, we strongly believe in the role of the instructor but as mentioned earlier, we think that the role of the instructor needs to change. One way we have been trying to change the role of the instructor is by "Teaching Naked" whenever we can.

"Teaching Naked," first coined by José A. Bowen, is the simple idea to "unplug the classroom" and eliminate one's over-reliance on technology. Bowen, like many others, worries that professors are spending way too much in-class time on technologies like PowerPoint (which he calls "the absolute worst form of technology for the classroom") when they should instead be using class time in more productive ways. Now Bowen is not advocating for completely eliminating technology altogether, but rather using it differently. In his case, this involves simply moving it out of the classroom.

Sound strange? Well, Bowen is quite edupunk in his approach, using podcast and video games regularly in his teaching practice. Bowen is not "anti-technology" he is just against the way it is currently used in most classrooms. His approach is thoroughly technological. In fact the approach is a really smart one; by using technology he is able to deliver the "lecture" material outside of class time, and save the in-class time for discussion and participation.

Faculty in the DAC have tried to follow Bowen's approach by simply moving the didactic content of our courses to currently familiar, accessible media, using familiar, everyday tools (e.g., wiki's, blogs, YouTube, Vimeo, Delicious, Twitter) that students can access outside of class. By doing so, students are able to consume the course content on their own terms, at a time of their choosing, with tools they use every day, and ultimately be better prepared *before* class. This approach changes what an instructor can do with class time.

Social Media Technologies used at the DAC

In my own teaching practice, I employ a number of technologies. But a small handful have risen to the top simply because they work well with my students. These include wikis, Skype screencasts, discussion forums, and social media like Facebook, Twitter, LinkedIn and YouTube.

Wiki

A wiki is an easy to use web technology that enables users to collaboratively construct and edit a website without special software or tools other than a web browser. The term wiki is Hawaiian for "quick" and was coined as a name for a particular type of website that allows visitors to easily contribute to and edit the website. Wiki systems are particularly suited for collaborative group authoring of documents and websites. The most famous example of a wiki is Wikipedia, a very extensive online encyclopedia that allows anyone to add to and edit its entries. In the DAC we use four forms of wikis:

1. Wikis authored solely by faculty.
2. Wikis primarily authored by students.
3. Wikis authored and used by staff and students as equals.
4. Wikis publicly available and created by others.

In the courses I teach, I embed wikis into my Blackboard course shell as a way to both deliver "off classroom" content (i.e., a wiki authored solely by faculty) in the spirit of teaching naked as well as a tool for students to cluster around a given subject or task in a more collaborative learning space (i.e., wikis primarily authored by students). Using wikis this way has been particularly useful in augmenting the classroom experience by allowing students to explore the course content in depth and to be prepared for more substantive face-to-face work in class. I often will combine wikis with other technologies. For instance, I often include a class specific YouTube channel in which I have gathered clips that teach a given concept in filmmaking or animation. The tool provides a particularly powerful learning space that allows students the freedom to access the content on their own time and on their own terms. In this specific example, students are then required to take a short, simple low-stakes quiz in Blackboard, which deals with the content of the wiki. This test insures that they have read through and watched the posted content prior to class time.

Skype

Skype, a Voice Over Internet (VOIP) tool, is another technology I (as well as other faculty at the DAC) use to connect the classroom with professional artists through informal video conferences. These video conferences are as easy to set up as a phone call and provide a connection to artists working in a studio or on location anywhere in the world (provided they have Internet access). These informal, often freeform discussions let the students find out what is going on in the industry, ask questions relative to that class and give them a chance to see, in some cases, life on the inside. This sort of forum helps DAC students make connections between theory and practice (between the classroom and the professional studio) as well as begin to take part in the larger community of practice.

Screencasts

In addition to Skype and wikis, I also use screencasting technologies to compliment face-to-face instruction. My students—particularly the "visual" learners—

love video tutorials. Video tutorials are a popular way of delivering content on specific tools or techniques in animation. The use of screen capture technologies to share information is ubiquitous within the animation industry. Rather than fighting the trend, faculty in the DAC regularly capture lectures and make them available to our students. Because of the complexity of what we teach, often the instructor will deliver the lecture in class and provide a video/podcast of the same lecture. The thought here is that even though the lecture is still delivered in class, it is often an abbreviated, quicker lecture saving the more detailed and technique specific lecture for the video/podcast.

For the DAC student, the podcast assets are a bonus. They are seen as a value-added component of the class, a sort of take away, that does not replace the professor, face-to-face discussions or the lecture, but gives them the opportunity to relive the experience again on their own time and on their own terms.

Social Media

Finally, as I mentioned earlier, social media technologies like Twitter, Facebook, and LinkedIn are used throughout the DAC capstone experience to help students collaborate with each other. But these social media tools also help students connect with people they might never have a chance to meet face-to-face in the larger professional community. These tools are widely used in the real world and particularly within the animation and filmmaking industries, to promote artists' video resume/portfolio or "reel". Therefore, in our field leveraging these tools for formal learning outcomes makes sense. We have also used these tools to help students connect with industry insiders. These connections have helped DAC students gain an insider's perspective on what they are learning in class helping to better align the classroom and the real world. This makes courses more connected and more professionally relevant.

Blogging

Blogs or more specifically blogging is a simple method for connecting the classroom with your ideas, lectures, and musings. While arguments may rage over the precise definition of blogging, a blog is in essence an online diary style website. Short articles are posted in chronological order, with the most recent one at the top of the page. Simple software enables writers to fill in a form, press a button and update their website, producing quick and easy publishing on the web without the need for technical skills. The following are just some of the ways you can use blogging for teaching and learning:

- Replacing standard class web pages
- Professor-written blogs which cover interesting developments that relate to the theme of the course
- Organization of in-class discussion
- Organization of intensive seminars where students have to provide weekly summaries of the readings
- Requiring students to write their own blogs as part of their grade

Conclusion

The edupunked, teach naked, and blended learning approach to education used at the DAC works. It fosters the creative opportunities that lie at the interface between virtual and physical worlds. It has built a solid DAC-centric learning community. It embraces access to knowledge communities, experts and personalities outside of the

institution, stressing the importance for students to connect with networks of experts, and to the professional knowledge resources they are hungry for. It gives the DAC student a 24/7, global access to content, methods and ideas directly related to what is happening in the classroom and new knowledge that augments the course material. Finally, it gives everyone a voice, promoting the two-way communications so critical to success in a collaborative, creative workspace. While everything we do in the DAC might not work for every discipline, I am convinced that many individual aspects could be successfully incorporated into nearly every degree program. I hope every faculty member can find a way to successfully navigate the shift that is taking place in higher education the way we have in the DAC.

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Bio

Howard Cook is a trained studio artist with graduate degrees in painting and Digital Cinema. Cook has been working with digital content creation since its inception. He began his career as a photorealist painter and became one of the country's leading space/aerospace artists. Working directly with the crews of 12 shuttle missions, Howard helped to develop some of the first Educational/Public outreach programs for the NASA Shuttle program. Howard has worked as a production designer and Art Director for Paramount studios and Lucas films working on a broad range of products for film and television. He was the co-author, illustrator, and designer for the Simon and Schuster's publication, *Designs on Space: Blueprints for 21st Century Space Technology*.

In 1997, Cook became the Chief Technologist at the Denver Museum of Nature and Science (DMNS). During his tenure, he was responsible for the development of new technologies and media tools for use in the museums award winning exhibits. He also led the design and creation of the new Gates Planetarium.

Since leaving DMNS in 2003, Howard has been consulting, focusing on development and design of marketing, Educational and Public Outreach Programs (E/PO), dynamic media, and experiences development. He joined the faculty of the University of Colorado College of Arts and Media in January of 2005 where he is currently the Area Head for the Digital Animation Center. Howard is also a member of the Board of Advisors for the National Space Science Technology Institute in Colorado Springs.

Chapter 5

Death to the digital dropbox: Rethinking Student Privacy and Public Performance[1]

Patrick R. Lowenthal
&
David Thomas

As online learning continues to grow each year, (Allen & Seaman, 2010) so do the number of new media and Web 2.0 technologies faculty have at their disposal (Antonelli, 2009; Dunlap & Lowenthal, 2011), yet the majority of online courses remain heavily text-based (Parry, 2009; WCET and Campus Project, 2009). Online learning often mirrors the traditional classroom (Janicki & Liegle, 2001; Parker, 2008; Rossett & Marshall, 2010; Lowenthal & White, 2009), with a focus on read and write (and at times discuss)—sometimes with good reason.[2] First, we all find ourselves relying on our previous experience when trying something new (Bransford, Brown, & Cocking, 1999; Lowenthal & Muth, 2008). Second, many methods used in traditional classroom environments can be effective in an online learning environment.[3]And third, over the past few years teaching online has become an increasingly complicated process, requiring both a specialized pedagogy and a technological aptitude possessed by few faculty (Lynch, 2005; Oblinger & Hawkins, 2006; Wray, Lowenthal, Bates, & Stevens, 2008). Given this, when confronted with the task of designing an online course (especially one taught previously in a face-to-face classroom environment), it is completely natural for faculty to replicate many, if not all, of the classroom activities in the online environment. We believe this is why so many online courses consist of little more than readings, online lectures in the form of PowerPoint presentations, and some online asynchronous discussions sprinkled throughout the semester.[4]

Perhaps one of the most often used, but seldom talked about, vestiges of the past carried over from traditional face-to-face courses into the online environment is the digital dropbox — or more specifically, the practice of having students submit their work privately. The digital dropbox is essentially a tool incorporated into most learning management systems that enables faculty to designate a virtual inbox where students

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[1] A previous version of this article was presented at EDUCAUSE 2009 in Denver, CO, and posted online in *Hacking the Academy*. This version was originally published in *EDUCAUSE Quarterly, 33*(3). http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/DeathtotheDigitalDropboxRethin/213672

[2] It is important to note that we bring this up not to suggest that we think online learning should strive to emulate face-to-face learning but rather that we recognize why many (but not all) online courses mirror traditional face-to-face courses.

[3] For instance, Chickering and Gamson's (1987) seven principles of good practice are generally sound principles of good classroom instruction that apply equally to the online environment (see Chickering & Ehrmann, 1996; Graham, Cagiltay, Lim, Craner, & Duffy, 2001).

[4] We recognize that the online learning landscape is diverse (Lowenthal, Wilson, & Parrish, 2009). We are not suggesting that most online courses fit this description across all contexts or that heavily text-based courses are necessarily always poor quality. Rather we have found, as we expect many others have, that there are far too many online courses that meet this description.

can privately submit their assignments and later retrieve them (presumably with a grade and some type of feedback). While there might be a specific time when it pedagogically makes sense to have students turn in their work to a digital dropbox viewable only by the instructor and the student, we have found that *most* of the time it makes little sense to do so. In this article we argue for use of a public performance model and explain why.

The Problem with the Digital Dropbox and Misconstrued Conceptions of Student Privacy

We contend that using a digital dropbox — or even worse, having students submit their work privately via e-mail — is more often than not a destructive pedagogical practice. Even as numerous studies and commonsense experience point to social interaction in online courses as a key success factor (Kreijns, Kirschner, & Jochems, 2003; McInnerney & Roberts, 2004), we find far too many faculty eliminating opportunities for conversation by asking students to turn in work privately (see Harvey, 2009). Once an assignment is inside the dropbox, the instructor pulls it out, grades it, then returns it to the dropbox for the student, and only the student to see. Meanwhile, we find effective teachers — who might have students turn in *some* assignments privately — asking students questions in class and having them present projects and papers, showing off work and performing in front of their fellow learners, experts, and the teacher. This "public" performance and feedback allow the teacher to increase accountability of the student performing, leverage feedback and teaching moments from one student to the entire class, and better calibrate student success models by publically offering criticism, praise, and formative feedback. The increase in educational impact without a corresponding increase in instructor workload clarifies why public feedback and assessment have remained powerful tools in classroom instruction.

Private feedback has its place in education (Bonk, Cummings, Hara, Fischler, & Lee, 2000; Rovai, 2004). We contend, however, that the vast majority of feedback can and should be public. Research has established the important role that feedback plays in formal education (Chickering & Gamson, 1987), and it is arguably even more important in online learning environments where faculty and students rarely, if ever, see each other face-to-face (Graham et al., 2001; Ertmer et al., 2007). While practitioners have highlighted the importance of feedback in online courses (Aragon, 2003; Lowenthal & Parscal, 2008; Palloff & Pratt, 2003), researchers have only recently begun to formally study the issue (Dennen, 2005; Oomen-Early, Bold, Wiginton, Gallien, & Anderson, 2008). Formal research is needed to fully understand how and when faculty should provide public versus private feedback, but we believe that even in its absence, there are obvious reasons to require public performance and use public feedback in the classes we teach.[5]

Objections to asking students to produce work for public consumption, even inside the safety of a learning management system (LMS), usually fall into one of several key categories of concern:

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[5] While there is very little formal research on requiring or integrating public performance or public feedback into online courses, people have argued for using this approach in some form at times in the past (Notar, Wilson, & Ross, 2002; Palloff & Pratt, 2009; Tu, 2004). Further, there is nothing new about having students conduct group work or online presentations online, though in our experience this is not used enough; in part because faculty often make assumptions about what can or can't be done effectively online (see Wray, Lowenthal, Bates, & Stevens, 2008). Finally, the literature on the important role of feedback in general and specifically feedback online suggests that public performance and public feedback might serve an important role in online courses (see Chickering & Gamson, 1987; Palloff & Pratt, 2005).

- Legal privacy requirements
- Fear of shaming students
- Lack of time

We will look at each of these objections in turn.

Privacy

Perhaps the single largest objection to having students post their work publicly (whether within an LMS or beyond) is the notion of privacy guarantees. People have talked about privacy within online learning nearly since its inception (Tu, 2002a, 2002b), and with the rise of social media, they are returning to this question (Boyd, 2010; Lenhart & Madden, 2007; Rooney, 2010). Privacy, though, is not nearly as simplistic as people often believe.[6] Danah Boyd, a social media researcher at Microsoft, recently gave a talk at South by Southwest (SXSW) (see Figure 1) in which she explains how complicated privacy is and how too often most people think of "public" versus "private" as simple binaries when in fact they are much more complicated than that.

Figure 1. Danah Boyd Talks About Privacy

Similarly, we posit that student privacy is a complex construct that cannot be reduced to a simple binary. We believe that student privacy should be thought of as existing in degrees or as a continuum from fully public to fully private, as shown in Figure 2. While oversimplified, the graphic illustrates that student privacy is not just a matter of being private or being public. Student privacy exists at the course level in that only the student and the instructor know that the student is taking the course (even though in practice dozens if not hundreds of faculty and staff often have some ability to view the student's work in the LMS). In the class other students can see the course roster, and through discussions and group assignments they interact with and can see the work of their peers. Faculty also occasionally invite guest speakers into a course. When this happens,

[6] For a theoretical discussion on the complicated nature of privacy, see Boyd (2010); for a more practical example, see Hayden (2010).

someone from outside the course becomes aware which students are enrolled in the course, and the students' degree of privacy decreases. At times — though less frequently — students find themselves taking part in an event in a contained public venue (for example, taking a proctored exam in a big auditorium) or even in an open public venue (presenting their work, for instance, or attending a required class event like an art exhibit), and just like that, the students' supposed privacy is all but gone.

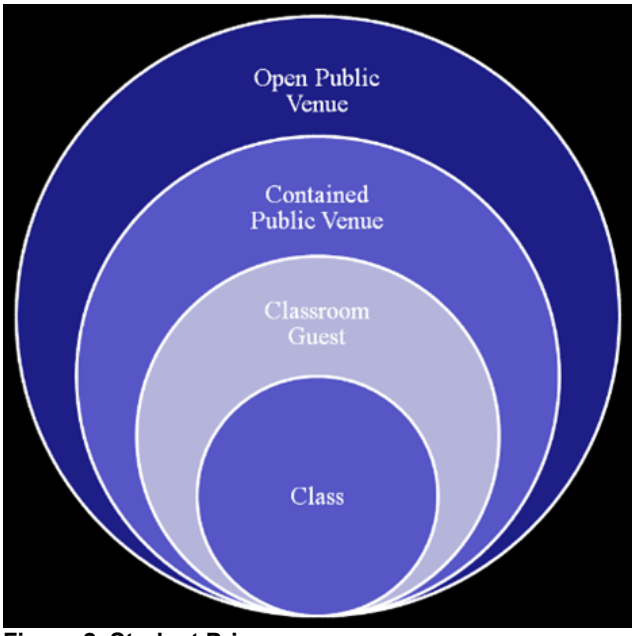

Figure 2. Student Privacy

Our point here is not to illustrate every possible point on the continuum of public versus private but rather to illustrate how complex student privacy can be. This continuum of privacy also makes clear how fluid our notions of privacy are, even in a traditional classroom.

Within the frame of education much is done in the name of privacy that really has little or nothing to do with the broader social value of individual privacy. Having public speaking students give speeches to their professor privately during office hours, for example, not only cuts against the authentic performance of the speech as a public act, it also eliminates meaningful learning opportunities from students observing their class peers. This logic applies equally well to an engineering student learning to communicate a bridge design and a writer mastering the craft of narrative.

The Family Education Rights and Privacy Act (FERPA) is routinely cited in the United States as the standard of student privacy. Reading the somewhat ambiguous language in the act reveals a few key points related to student educational records. Most importantly, student grades and their enrollment status is protected information; faculty may not post grades on their office doors or even post class lists, for instance. However, the act also allows for open, public feedback on student performance in the interest of reaching educational goals. In other words, FERPA provides for public performance of student work in order to teach; in doing so, it allows a more nuanced notion of privacy than "private/public." While specific institutional policy might further restrain what a

teacher can and cannot do in the classroom, the point here is not to erase the broader notion of privacy but to attack the common misperception that everything the student produces in a classroom is private in all senses. Clearly, privacy rights are important; we have all heard of examples of students being stalked or cases of identity theft that have resulted from a breach of privacy. So is balancing meaningful needs for student privacy with the equally important need to share feedback to achieve pedagogical goals.

Finally, many students might choose to take online courses because of their perceived anonymity and privacy (Varvel, 2005). These students might be dissatisfied when their expectations are not met. While we recognize that this will happen sometimes, we strongly believe that research suggests learning is largely a social process[7] and that students benefit from socially interacting with their peers, even in (and at times especially in) mediated learning environments.[8]

Shame

Another objection faculty make to instituting a public performance model in their online courses essentially reflects the fear that requiring students to present their work publicly and having it evaluated publicly (different than grading it publicly), whether in the course shell or beyond, will somehow embarrass or shame the students. While we recognize the strong negative extrinsic motivations involved with public performance, it is more important to recognize the role that traditional public review of work has in the classroom. Requiring a public performance of what someone has learned is not new. Public performance and public feedback as instructional strategies are not only accepted (with a long history of use) but also valued within the arts (see Eisner, 1993; Ross, 1994). The arts and architectural education both maintain traditions of the studio critique, where a teacher and outside practitioners publicly comment on student work. The goal is to provide students with timely, expert feedback on their work, and for other students in the class/studio to learn from the feedback as well.

Further, portfolios have been used for years in teacher education (Barton & Collins, 1993). While portfolios are often developed for a variety of purposes (reflection, summative assessment, or as a showcase, among others), they also offer a way to publicly demonstrate what a student knows and can do.

The pedagogy underlying the idea of a studio critique or even the development of a portfolio — that is, a public showing and often public assessment/evaluation of one's work — should not be restricted to the arts or teacher education. And while public performance and public critique might at times embarrass some students, in our experience students tend to work harder when they know their work will be viewed and judged by their peers or potential employers.

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[7] Different theories of learning have argued, in varying degrees, that learning is a social process—for example, "social learning theory" (Bandura, 1977), "social constructivism" (Vygotsky, 1986, 1978), "situated cognition/learning" (Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991). Social learning theories, like these, all maintain that learning is "fundamentally social in nature; that it always involves interactions among people on some level" (Swan & Shea, 2005).

[8] Student-to-student interaction can help establish social presence in online courses. And researchers have shown that there is a relationship between social presence and student satisfaction (Gunawardena, 1995; Gunawardena & Zittle, 1997), social presence and the development of a community of learners (Rovai, 2002), and social presence and perceived learning (Richardson & Swan, 2003).

Lack of Time

Another common objection brought up by faculty for not using a public performance model in their courses involves their lack of time. Online faculty regularly claim that teaching online takes more time than teaching in a face-to-face classroom (Dunlap, 2005; Mills, Yanes, & Casebeer, 2009). Given this, the idea of adding one more thing (public feedback) and changing the way they have done things for semesters — if not years — just seems like too much.

We have found, though, that having students share their work publicly can actually save faculty time. Depending on the LMS, the only time-saving benefit (that we can identify) is the ability to download (or "collect") all assignments in one zipped folder.[9] The time saved doing this is negligible compared to the benefits of having students submit their work publicly in the LMS course shell. For instance, having students post work online in public places in the LMS (such as discussion forums) can save faculty time by enabling them to reference feedback they provided other students. Further, evaluating student work publicly can help improve the instructor feedback as well as student satisfaction because students see the instructor's participation in the course shell responding to other students rather than wondering when their own work will be graded (Dennen, 2007). Finally, faculty can involve students by having them turn in a rough draft publicly in the LMS and asking their peers to provide formative feedback.

Other Objections

Does public review of written material increase instances of plagiarism or raise other intellectual property issues? For instance, if students upload their term papers to a discussion forum for everyone to see, then any student can easily download and distribute another student's work. Does this public submission violate the students' intellectual property? These important questions should be considered in the context of public performance (Jocoy & DiBiase, 2006).

We believe faculty can adopt strategies to mitigate these issues. For instance, assignments customized to the student's personal background and interests can make it harder for students to "lend" their work to others in subsequent semesters. Further, if students must post their work publicly, they will probably think twice before plagiarizing or cheating in front of their peers in a semipublic venue like an online course discussion.

Finally, sharing work publically does not diminish a student's rights to that work. Cases of students openly sharing their work can help establish it as theirs and prevent others from claiming it while enriching it through peer feedback. Regardless of their work's merit, students need to learn the importance of copyright, plagiarism, and intellectual property. Encouraging or even requiring students to copyright or add a Creative Commons license to their work is always a good idea. Given the beginnings of a shift toward a more open and collaborative culture of sharing (open source software, open education, open social networks), students need to learn not only how to cite and credit others' work but also how to protect their own work.

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[9] We use two LMSs at our institution. Both offer faculty different options when grading/exporting/viewing student work. While some LMSs like recent versions of Blackboard enable faculty to download all of the work in a dropbox in one zipped folder, others require faculty to download each file individually. In fact, others have pointed out that depending on these options, the dropbox can make it difficult to "organize, track, and assess assignments" (Baron, 2003).

The Solution: Public Performance Models

A student steps onto the stage, hands poised on his electric guitar. The audience settles and he begins, tapping out harmonics and effortlessly flowing through multi-octave scales. The guitar sings in a multitude of voices as his fingers fly across the fretboard. You have to see it, not just hear it, to completely appreciate the virtuosity of the sonic performance. The audience claps and cheers. A few seasoned musicians compliment the performance and offer suggestions on how to move the performer's skills even further.

Public. Performance. Critique. It's a time-honored model in the performing and fine arts. Other disciplines like teacher education and medicine also have elements of public performance in their curriculum. But we, like others (Palloff & Pratt, 2009), strongly believe it is time to consider public performance as a pedagogical tool in all disciplines. More importantly, we want to expand the notion of a public performance online to include the sharing of largely written material — essays, projects, papers, and even exams. We briefly outline some core strategies faculty can use to accomplish this and some benefits of abandoning the digital dropbox.

Stop Using the Dropbox

While private communication and feedback between a student and teacher may have a place in the classroom — online or face-to-face — in this article we focus on the expanding set of cases and circumstances where public dialogue about student work is effective, practical, and desirable. Even in cases where students might need some scaffolding and time to increase their self-confidence before performing publicly and being critiqued, a simple first step is to have them turn in their work in public spaces in the LMS course shell (see Figure 3). Online discussion forums are a great environment in which to post student work — from simple comments all the way up to essay exams and complete project proposals — making the work public to the class without exposing the student to comments outside the virtual walls of the online classroom.

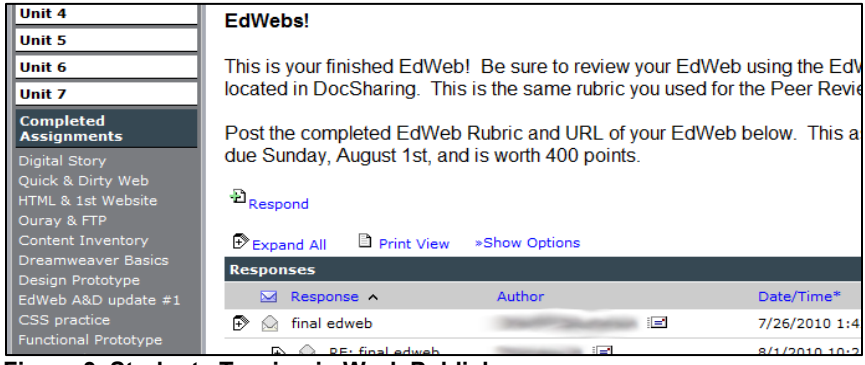

Figure 3. Students Turning in Work Publicly

By simply replacing the dropbox with public submission of work, any student assignment becomes a type of performance. Whether a paper, report, or page of problems solved, each student's work is fully visible to the class. The instructor provides feedback on the assignments, allowing students to learn from the direct assessment of not only their own work but also by reflecting on the work of their peers. The grade, plus any feedback that the instructor feels should remain private, can be provided and recorded in an online gradebook.

Rather than simply having students post their work in a discussion forum, instructors might take the notion of performance a step further. Using web-based tools such as Jing or Adobe Connect, students can present their work in a reasonable proxy for a classroom presentation, then later distribute it as they see fit.

We have successfully implemented a no-dropbox policy across a number of online courses we teach that span the education and art history disciplines. Not only has the policy decreased our workload by minimizing repetitious evaluations, there have been no student complaints regarding the public process of presenting work and receiving feedback.

True Public Performance

Web-based tools allow students to present their work to a community outside of the LMS. This larger audience might include experts in the field who can provide authentic and relevant feedback. Keep in mind, though, that if you choose to leave the safety of the LMS, you should ensure that you have prior consent from the students or give them the option to work under a pseudonym. We have asked students to create blogs, but we talk through the implications of making the blogs public to the world (which we encourage and sometimes even require) (Dunlap & Lowenthal, 2011) or simply public to members of their course or graduate program. When we require students to take part in a fully public event, we make every effort to give them the ability to work under a pseudonym.

Faculty need to recognize the privacy concerns of students who do not want their enrollment in the class made public knowledge (in line with FERPA's privacy concerns). Depending on the tool and the nature of the assignment, faculty can provide means by which students can protect their identity on the Internet while allowing the faculty, and the broader Internet community, to provide feedback and guidance on any work posted publicly.

Benefits from Abandoning the Digital Dropbox

Online approaches to student privacy seem to be both well-intentioned and driven by the uncritical application of classroom management techniques — such as grading papers privately outside of class. Nonetheless, privacy regulations appear to allow greater latitude in asking students to provide work publically and to perform publically inside the virtual classroom. Further, public submission and feedback cycles for most types of work have proven to be a superior strategy in the online classroom.

Summing up the benefits of abandoning the digital dropbox:

- Public posting enables students to see the work of their peers. Among other things, students can see differences in quality of work. This helps calibrate superior performance in the class, allowing all students to observe and model top performance.
- Students seem reluctant to turn in low-quality work in front of their peers.
- Visibility could discourage plagiarism because students would have to cheat in front of their peers.
- Public postings increase the instructor's social presence in the course by allowing all students to see feedback on all assignments. Because students largely gauge instructor participation in a course on the amount of feedback provided to the class, public postings allow students to better estimate the total time commitment the teacher makes to the online course. Private feedback

skews the appearance of faculty contribution because students can't view the actual amount of instructor feedback given to the class in total.

- Public feedback by the instructor helps minimize workload by reducing the number of redundant comments across assignments.
- Perhaps most importantly, public performance and accountability better model real-world conditions, where work ultimately is consumed inside a social system, by groups, publicly. In this sense, the public performance and feedback model provides students the most authentic practice available in a classroom—online or not.

Conclusion

Why make student work private? In this article we suggest that the presumption in that question should shift away from privacy. Teachers should mandate public performance and feedback unless they see a clear argument, whether legal or pedagogical, in favor of privacy. Students should in some cases use the dropbox, especially when the work they turn in should be a privileged communication. But educational theory and common sense suggest that in most cases faculty resort to protecting perceived privacy without considering the educational impacts.

Learning is a socially situated practice. The outcomes of learning will almost surely be applied inside socially structured work environments that do not have any sense of private output. Reports, project plans, memos, and analysis are produced and presented in a very public manner. Reflecting an authentic practice of working with others to achieve an outcome, public performance of student work not only models this practice, it also provides remarkable learning opportunities for students receiving feedback from their peers, outside experts, and the instructor.

Equally critical, as faculty move to an online delivery modality, they also must consider their work practices — not only in terms of pedagogical effectiveness, but in terms of workload efficiency. To that end, public submission of work and public feedback can increase faculty social presence without increasing the amount of work involved. Likewise, public feedback helps minimize the workload involved with grading by allowing the teacher to reduce the number of redundant remarks inevitable when scoring across private assignments. Just as important, the public feedback provides a class-wide formative activity where everyone learns from everyone else's assignment.

The Internet provides a new venue for education. Reconsidering student privacy in the online world is, we believe, a doorway to improving education.

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Bios

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David, after leaving a career in corporate training, technology and product development, happily returned to the university. He found a home at CU Online, supporting faculty and helping build out the various training and support offerings CU Online provides to faculty. When not heading up the able academic technology services team, David works on his PhD in planning and design in the College of Architecture and Planning where he researches the question, "What makes a place fun?"

Chapter 6

Effectively Organizing Student Work Groups in an Online Learning Environment

Jeffrey R. Nystrom

I will never forget the day when my Associate Dean asked me to teach an undergraduate capstone course online (MGMT 4500: Business Policy and Strategic Management). A number of the core business courses were going to be offered online and he wanted me to teach the capstone course. It made sense. I had been teaching multiple sections of the course on campus for a number of years at this point and therefore I was the "ideal" candidate for the job. While I could have said no, the pressure to accept his offer was very real. I remember leaving his office thinking to myself "what an absurd idea" it was to offer this specific course online. At the same time, I fully understood that online learning was not just another fad; it was an idea that was here to stay.

Although I had used Blackboard for a number of years to supplement my face-to-face courses, I thought the idea of delivering a section fully online was simply impractical. Why you ask? Well, pedagogical reasons aside (which I had many or so I thought), my main concern centered on how to effectively deliver a course online that made extensive use of group work from a logistics perspective. It was hard enough to manage student work groups in a traditional classroom; I couldn't imagine doing it online.

When I began designing and developing the course, I decided to simply eliminate the group assignments from the online version of the course. However, as I proceeded, I quickly realized that the group assignments I was eliminating were the ones that most effectively fueled student engagement and learning as well as most effectively met the course objectives. In the end, I came to realize that it was my attitude toward teaching online that was the real problem, not doing group work online.

I am not alone though. While many educators make extensive use of team-based types of group assignments in traditional on-campus courses, in my experience many of these same instructors refrain from using these types of assignments when teaching online. In this chapter, I explain how I use student work groups in my online courses in an effort to encourage other faculty to use more team-based assignments in their online courses to build a sense of community and togetherness and, ultimately, as a means to increase student engagement and learning.

Setting Up Student Work Groups For Success

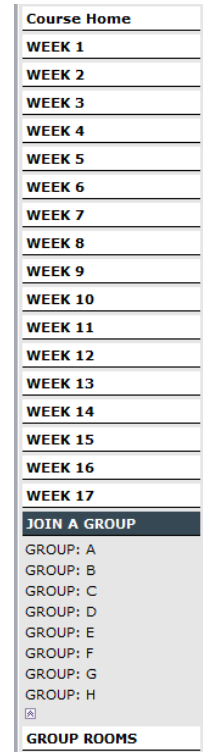
Perhaps the most important step to using student work groups is to ensure that the group assignment(s) make sense and aligns with the course objectives. After that, you must strive to provide as much structure and directions for students to help make the process as seamless as possible. Below, I outline how I setup student work groups for success in my online courses. In essence, the approach requires setting up two distinct units in a course. One unit is used for initially forming groups. In my course, I refer to this unit as the "*JOIN A GROUP"* unit. The other unit serves as an additional means for team members to communicate with one another throughout the term. In my course, I refer to this second unit as the "*GROUP ROOMS"* unit. Step-by-step

instructions and tips for setting up each of the aforementioned units and associated content items are outlined below. Please note: while I describe how I do this in eCollege (one of two Learning Management System (LMS) used at our institution), the overall process could be adapted for any LMS.

The "JOIN A GROUP" Unit

Once I have identified why I want to use student work groups in my course and aligned the assignments with the overall course objectives, I set forth to put students into groups. Over the years, I have experimented with a number of different methods for organizing students into work groups. For example, early on in my teaching career I would just randomly assign students to groups. This was a very efficient approach, but it was not a very effective one. Although every instructor has a preferred method for organizing students into groups, my preference is to permit students to play an active role in the process.

In my face-to-face course, I typically set aside one class session during the second week of the term for the sole purpose of organizing student work groups. However, using this type of participatory approach to organize student work groups in an online learning environment can be much more challenging. Nonetheless, I have developed a fairly straightforward technique that allows students to play an active role in the process. Students seem to embrace the approach, it works very well, and I am convinced that it promotes both student engagement and learning.



Step 1: Create a Unit for students to join a group.
In eCollege, I create a "Unit" for the initial task of forming groups. For navigational purposes, I recommend using a very conspicuous heading for this unit like "JOIN A GROUP" and place it second to the last unit in the navigation of your course.

Step 2: Set up threaded discussion for each group.
Under the "JOIN A GROUP" unit, I then add threaded discussions for each group. But before I can do this, I decide on the number of groups that I want to have. This is not a step to take lightly. I have found that the number of groups and therefore the size of each group can often determine the success or failure for student work groups. Since my course is typically capped at 40 students and because I prefer to use groups of no more than five students, I create eight threaded discussions (one for each group).

For navigational purposes and usability, I use a very conspicuous heading for each content item (i.e., for each threaded discussion). For example, in my course I use the following headings: GROUP A, GROUP B, GROUP C, GROUP D, GROUP E, GROUP F, GROUP G and GROUP H. (Note: I recommend labeling each content item with letters as opposed to numbers. This is because the eCollege "Group Management" tool uses letters. Also, when setting up these content items, be sure to assign "All Class Members" to them so that each student can join the group they want).

Step 3: Provide directions on the group formation process.
Once the unit is set up, it is time to provide students with an explanation of the group formation process and instructions for joining a group. I add the following directions (see Table 1) to the visual text editor on the "JOIN A GROUP" unit homepage in eCollege so that students see the directions once they click on "JOIN A GROUP." Note: I also include this information in the course syllabus.

Table 1. "JOIN A GROUP" Unit Homepage

JOIN A GROUP

A team-based term project is used to facilitate learning in this course. The group formation process and associated instructions are explained in the course syllabus. For your convenience, it's shown below exactly as it appears in the course syllabus. I urge you to read it carefully.. Each student will have an opportunity to indicate what group he or she would prefer to join by the end of Week 2.

Group Formation Process and Instructions

Rather than randomly assign each student [you] to a group, each student [you] will have an opportunity to indicate the group that he or she [you] would prefer to join. To be clear, this means you will have an opportunity to let me know what group you would prefer to join; it does not mean that you will be able to decide who is or is not going to be in your group. It merely means that you will have a chance to indicate what group you would prefer to join (i.e., indicate a group preference). Simply stated, within the parameters outlined below, each student is free to join one of eight possible groups (each group will be comprised of a maximum of 5 students).

Step 1: Click on the unit (in the left navigation) labeled **JOIN A GROUP**. This unit is designed to provide you with a convenient means to indicate your group preference. When you "expand" this unit by clicking on it, you will see 8 threaded discussion areas—one for each group (e.g., Group A, Group B, Group C, Group D, and so forth).

Step 2: Click on the appropriate groups threaded discussion that you would prefer to join. Next, click on "**Respond**" and type the word **YES** in the "**Subject:**" field and the word **YES** in the response area. This simple protocol will indicate to me this is the group that you would prefer join. Important: Please refrain from adding any additional comments. These threaded discussion areas are intended solely as a means for you to indicate to me the group that you would prefer to join; they are not intended for discussions. If 5 people have already indicated a preference for a particular group, then you must select a different group, no exceptions. If you attempt to join a group that 5 students have already indicated a preference to join, then I will delete your posting and randomly assign you to another group. Also, don't indicate more than one group preference. If you indicate more than one group preference, then I will randomly assign you to a group at the beginning of Week 3.
Note: If you want me to randomly assign you to a group, then no action is required on your part (i.e., I will randomly assign you to a group at the beginning of Week 3).

Please indicate your group preference before the end of Week 2. You will not be able to gain access to the threaded discussions associated with each group after the end of Week 2, no exceptions. Groups will be finalized at the beginning of Week 3. At that point in time, I will create 8 private discussion forums, one for each group. Note: You will not have access to your group's private discussion forum before Week 3. Check the "Announcements" at the beginning of Week 3 for instructions. In the meantime, have fun joining a group!

In an effort for clarity, I also provide additional instructions in each of the threaded discussions for each group. I intentionally repeat a key section of the instructions included in the Unit Homepage (see Table 1) in each content item. I do this because experience has taught me that a high degree of redundancy is necessary when

using a participatory approach to organize students into groups. In Table 2, you can see what students see when they click on a specific threaded discussion. While this example is for the threaded discussion labeled GROUP A, students would see this same information if they clicked on GROUP B, GROUP C, and so on.

Table 2. Information Included in a "JOIN A GROUP" threaded discussion

If you would like to join **GROUP A**, then simply click on "**Respond**" (below) and type the word **YES** in the "**Subject:**" field and the word **YES** in the response area. This simple protocol will indicate to me this is the group that you would prefer join. Important: Please refrain from adding any additional comments. These threaded discussion areas are intended solely as a means for you to indicate to me the group that you would prefer to join; they are not intended for discussions. If 5 people have already indicated a preference for a particular group, then you must select a different group, no exceptions. If you attempt to join a group that 5 students have already indicated a preference to join, then I will delete your posting and randomly assign you to another group. Also, don't indicate more than one group preference. If you indicate more than one group preference, then I will randomly assign you to a group at the beginning of Week 3. Note: If you want me to randomly assign you to a group, then no action is required on your part (i.e., I will randomly assign you to a group at the beginning of Week 3).

The *Group Rooms* Unit

After students share their group preference, I set up each group using eCollege's Group Management tool. I then create a private threaded discussion forum in the course for each group to work together with their own group members, which I refer to as "group rooms." The private group rooms are helpful for a number of reasons.

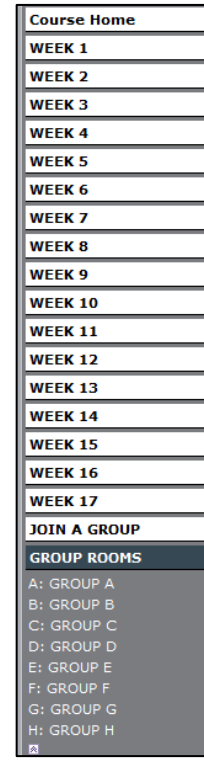
First, since each group room is only visible to the students assigned to it, students know which group they were assigned immediately after I finalize groups. This eliminates the need for me to communicate to each student the group to which they have been assigned.

Second, the group rooms serve as an initial place for students to formally introduce themselves to one another. Although I do not require students to use their group rooms as the sole means to communicate with one another, I do require them to use it to formally introduce themselves to each other. In this regard, it also serves as a way for me to confirm that each student in the course knows exactly who their teammates are and whether or not they have made an effort to communicate with them.

Third, each time a student logs into the course, eCollege's "What's New" feature notifies them if there has been activity in their group room. I have found that this serves to motivate students to regularly visit their group room and, hence, it improves student engagement in team-related work.

Finally, it serves as a means for me to quickly communicate group-related issues with each group in the course. In the end, although the group rooms are helpful for a number of reasons, I am convinced that increased student engagement in team-related activities is the most valuable outcome. The following steps outline how I actually create this space for each group to work.

Step 1: Create a Unit for Group Work.
I first add a unit called "GROUP ROOMS." This unit is designed to serve as a place for team members to communicate with one another throughout the term. Although I do not require students to work in this space, I have found that students make extensive use of it. In fact, feedback from students suggests they prefer to communicate with each other in their group rooms versus using other course communication tools such as eCollege's "email" or "chat" tool. For navigational purposes, I place it as the last unit.



Step 2: Add content items to the "GROUP ROOMS" unit.
After I finalize who will be in each group, I create a threaded discussion for each group. I name each threaded discussion based on the group (e.g., GROUP A, GROUP B, GROUP C, GROUP D, and so forth). Similar to the JOIN A GROUP threaded discussions, I label each one with letters as opposed to numbers. Though unlike the threaded discussions under the "JOIN A GROUP" unit (which I set up for "All Class Members), I use the "Group Management" tool in eCollege to assign specific group members to each threaded discussion under the "GROUP ROOMS" unit.

The "Group Management Tool" in eCollege is located under the "Course Admin" button. Like similar tools in other LMSs, you need to create a group first and then select which students to add to the group. Then when you create each threaded discussion, you can assign access to the threaded discussion to one specific group. If you complete this step correctly in eCollege, you will notice that each threaded discussion is preceded by the letter of the group and a colon signifying which group has access to it. For instance, "A: Group A" is only available to members of Group A. Finally, it's important to create a topic with some introductory text in each threaded discussion because eCollege (unlike other LMSs) does not allow students to create their own topics. See Table 3 for an example of the introductory text I add to each group.

Table 3. Information Included in Each Threaded Discussion

This is a private room (i.e., threaded discussion area) for Group A members only. Other students in the class will not have access to this threaded discussion area. Furthermore, your group is not required to use this threaded discussion area. In other words, I will not be monitoring user activity in this threaded discussion area (i.e., activity in this threaded discussion area will not be evaluated or used to derive individual grades or Comprehensive Term Project grades). It is simply designed to provide group members with an additional and convenient way to communicate with each other. That is, it is just one of many means of communicating with each other. Successful groups will use other avenues as well (i.e., e-mail, the telephone, face-to-face meetings, etc.). Communication between group members is crucial. This threaded discussion area is designed to facilitate effective communication between group members.

Step 3: Post an announcement that the groups are finalized.
After I have setup the groups threaded discussions—thus giving each group a private place to work together—I then use the eCollege "Announcements" tool to post an announcement informing students that groups have been finalized. See Table 4 for an example of what I post in the announcement.

Table 4. Announcement Informing Students That Groups Have Been Finalized

Course Update: Groups Finalized

As explained in the course syllabus: I will finalize groups at the beginning of Week 3. That is, at the beginning of Week 3 I will review all group preferences indicated and, if necessary, randomly assign students that did not indicate a preference (or failed to follow the instructions) to a group. Additionally, at this point in time, I will create private/secure group rooms (i.e., threaded discussion areas), one for each group.
To date, I have reviewed all group preferences indicated during Week 1 and Week 2 and, where necessary, randomly assigned students that did not indicate a preference (or failed to follow the instructions) to a group. Additionally, I created a private/secure group room (i.e., threaded discussion area) for each group. To access your group's group room, click on the unit (or navigation button in the **Course Navigation Tree** located along the left side of the **Course Homepage** screen) labeled **GROUP ROOMS**. This unit (or navigation button) is located directly below the unit (or navigation button) labeled **JOIN A GROUP**.

Note: although I recommend that each group use its room (i.e., threaded discussion area), groups are not required to use them. In other words, I will not be monitoring user activity in these threaded discussion areas (i.e., activity in these threaded discussion areas will not be evaluated or used to derive individual grades or Comprehensive Term Project grades). They are simply designed to provide group members with an additional and convenient way to communicate with each other. Remember, it is only one of many ways to communicate with group members. Successful groups will use other avenues as well (i.e., email, the telephone, face-to-face meetings, etc.).

Concluding Comments

Regardless of whether I am teaching a course in a traditional classroom setting or in an online learning environment, I use team-based assignments. Although one could generate a lengthy list of pedagogical reasons for using them, one of the reasons why I use them is because I think they are a powerful means for creating a sense of community and togetherness. I have witnessed their capacity to do this in both traditional classroom settings and online settings. In the end, I believe having a feeling of community and togetherness in any learning environment increases student engagement and, ultimately, student learning. With this point in mind, educators that choose not to use team-based assignments, especially in online instruction, are missing a golden opportunity to build a greater sense of community and togetherness in their course. Much of my success with using team-based assignments online is due to the front-end time I spend organizing and setting up the groups and later supporting them. Through following similar steps like I have outlined in this chapter, I am confident that you can reap the rewards of team-based assignments in your courses as well.

Bio

Jeffrey R. Nystrom is an Instructor of Management in the Business School at the University of Colorado Denver. He teaches undergraduate and graduate courses in strategic management and organizational theory. Jeffrey has over 15 years of teaching experience and has been teaching online since 2005. He began his career as an educator in 1995 at College America Denver where he taught courses in management and served as the program director of the management department. In September of 2000, Jeffrey joined the Business School faculty of the University of Colorado Denver. He was the recipient of the 2004 Business School Excellence in Teaching Award (Non Tenure-Track). Recently, he received the 2008-2009 Outstanding Student Organization Advisor Award. The focus of his scholarship is applied research and learning and pedagogical research. Prior to his career in education, he held a number of sales and management positions in industry. He holds a B.S. in Business Administration and M.S. in Management and Organization from the University of Colorado.

Chapter 7

Evolution and Transformation: From Physical to Virtual Classroom, from Teaching to Learning

Rodney Muth

When I came to the University of Colorado Denver (UCD) in 1992, I worked with my colleagues to move our principal-preparation program (PPP) from freestanding courses that students took almost randomly to an integrated, sequential cohort program. Over the years, we have consistently examined what we do and made changes necessary to improving our program following the conclusion of each cohort. When challenged in 1998 to convert all or part of our program to an online format, my colleagues and I jumped at the opportunity and created a 32-credit online principal licensing program to serve rural Colorado.

This chapter is a story about what I learned over the last 12 years about learning (and teaching) since converting our program to an online format. Through this process over the years, I also learned that my ideas about learning and teaching had evolved, albeit somewhat unconsciously, out of opportunities that stimulated my curiosity and led me and my colleagues to discover new ways to think about learning (and teaching), especially in online environments. My growth has been slow but steady, and, just as I begin to think that I understand what I am doing, why, and to what ends, I learn that many, many possibilities remain to be explored.

Online Program Development in the Early Days

While nowadays people often quickly jump into developing programs online, in the late nineties considerable skepticism existed about online learning, compounded by a general lack of experience. Before we began converting our program to an online format, we took the opportunity to learn more about online programming: about transferring, revamping, and reconceptualizing classroom practices for online environments; about instructional design; and about delivery platforms. Each of these elements presented classroom-based faculty with challenges such as redesigning curricular sequences, creating alternatives to classroom practices, and re-examining the role of group activities and how to manage them as well as clarifying the role of discussion in learning.

We were fortunate though to have received funding for our project. Given our funding, we were able to hire three instructional designers. Their coaching, assistance, and support were essential to our success. Using outside expertise to assist with such transitions can be very helpful; it can cut the time it takes to make the transition and ensure that changes made are likely to be productive.

The instructional designers met with the faculty regularly, sometimes weekly as a group and often as individuals, to work out design and transfer issues. Each group meeting focused on a topic, often an article on one or more phases of online learning, spending an hour or more questioning, debating, and discussing issues involved in putting a whole licensing program online. These conversations and one-on-one sessions gave faculty both time to assimilate new ways of thinking about teaching and learning generally and specifically in online settings as well as the security necessary to making

sometimes threatening changes. When thinking about developing a brand new program online or converting a current face-to-face program online, finding instructional designers or experienced faculty or staff (such as CU Online provides) can be of immeasurable help.

The 32-credit program that evolved became a 14-month preparation sequence that included an eight-day boot camp in June of the first summer with online activities the rest of the summer for 8 credits, two academic semesters of 8 credits each, and a concluding face-to-face session in July the following summer (8 credits) during which students complete their projects and review their assessment portfolios with faculty.

The current boot camp is three days shorter, and students now return to campus for two days twice each semester and for additional days during the final summer. Students in early cohorts asked for some face-to-face time, and following cohorts asked for more. The current two sessions each academic semester seem to work well.

While the face-to-face parts of this hybrid program in ways may seem minimal, they are designed to be short and intense, provide opportunities to create and reinforce culture during each face-to-face visit, and lay the groundwork for and follow-up on all curriculum and assessment activities. Each return visit during the academic year focuses on assignment reviews and evaluations, clarification of expected and upcoming work, and small- or whole-group activities that advance each of these objectives.

Another novel feature of our online program is what we now call "stretched" assignments. While students enroll for a particular "course" each semester, an assignment given semester 1 (summer 1) might not be completed until semester 3 the following spring. These stretched assignments seek to replicate the cycle of work that our students confront in their schools. Thus, in their content-based and their clinical-practice activities in which they apply knowledge to practice in real settings, they work on problems that mirror the work that they are preparing to undertake after graduation. The combination of the boot camp, the stretched assignments, and the integrated clinical practice have become defining features of our online program that persist today.

Now more than 12 years later, the program has evolved from a rural-only focus to serve any Colorado student who wants to complete our program online. Each cohort has numbered about 20 at graduation, given attrition, but as many as 70 percent of each cohort eventually take school-leadership positions, a proportion considerably higher than that achieved nationally in principal-preparation programs. Due to our successes preparing principals online, our formerly face-to-face cohorts now are hybrid programs with fewer face-to-face sessions and more work online.

Teaching vs. Learning

The juxtaposition of teaching and learning is the heart of what I have come to appreciate over the years (regardless of the learning environment): How well I teach is meaningless if my students are not learning or if what they "learn" has no staying power. As I made the transition to online teaching, I had to ask a simple question: What do I want my students to know and be able to do when they finish the term with me? Previously, I knew that my students needed to learn, say, the contents of some source materials, have some experiences through various activities, and show in some way that they had acquired some skills and knowledge along the way. I did not, however, concern myself particularly with the depth, longevity, or usability of what they were learning. I also came to realize that proof of learning perhaps was more usable, durable, and transferable if the learning was demonstrable in some authentic ways.

Thus, in addition to attending to the key elements in the previous section, I also began developing learning objectives that covered skills, knowledge, and (more rarely) dispositions to demonstrate that what was learned could be maintained and carried into new circumstances. Doing so was aided and abetted by the state of Colorado's standards of practice and criteria for program outcomes. For example, threaded discussions and reading logs can show that students have mastered knowledge and skills, and group research papers can demonstrate that both have been retained and that the concepts and practices are likely applicable under different, future conditions. Further, having clear outcome expectations (rubrics) related to group projects, I am able to discern evidence of knowledge durability in the products the group produces. Again, their developmental work proceeds in threaded discussions, so I am able to monitor what they do and give them useful feedback there as well as on the drafts of their projects.

Lessons Learned From an Early Adopter

Typically, I learn by "just doing it," by figuring out what works and what does not. Often, this starts with an idea or something I read or heard from a colleague, and I simply jump in with both feet. My impetuousness often leads to mistakes but most often to significant learning. With PPP, for example, the dean's agenda looked good and resonated with our need to serve the Western Slope of Colorado, so we just went for it, not fully recognizing what would be involved. Transitioning our program online, we reshaped, expanded, or reoriented the best of our successful classroom practices (e.g., standards-based knowledge and skill development, problem-based learning, clinical applications) and created supports to ensure that our students learn how to be effective school leaders. For example, we developed chats to emulate in-class discussions; maintained regular online presence to be quickly responsive to student needs, both technical and instructional; and created assignments that focused on problems of practice in the school settings to give them hands-on experience applying their knowledge in real settings.

Structure

After more than 11 years teaching online, I have come to realize that three key words are critical to online success: *structure, structure, structure*. For me, structure includes the following elements:

1. Clear outcomes expectations (learning objectives)
2. Clear deadlines for assignments
3. Clear directions on how assignments are to be completed, supported by detailed rubrics that provide a shared architecture for levels of student accomplishment as well as grading criteria for activities (which helps students understand what is important and how they will be assessed)
4. Clear description of an instructor's availability so that students are confident that their queries will be addressed quickly and regularly
5. Clear communication strategies and expectations for regular student-to-student and student-to-instructor contact:
    - a virtual office
    - easy-to-find weekly discussion threads
    - regular announcements

The point is to give students multiple sources of the same information, lots of clear expectations backed by rubrics and other supports, and plenty of ways to reach out and get help. Providing lots of structure assures students that instructors know what they are doing and gives them confidence that they can tackle online learning successfully.

Repetition

Repetition is essential (see above!). Online students need continuous reinforcements. In face-to-face environments students most often receive this continuous reinforcement from informal conversations with fellow students; from informal questions and feedback from instructors before, during, and after class sessions; from information conveyed through inquiries by others; and from focused classroom discussions. Some of these methods are replicable online, but formal attention to repetition ensures that students' needs are anticipated and addressed in timely ways.

Open Communication & Feedback

From colleagues, I have learned to augment these structures and forms of repetition through weekly "plus-delta" questions to and feedback from students about the preceding week's activities and outcomes. Based on their feedback, I make immediate course corrections. The following are some of the questions I ask, given how the students are responding to activities and assignments and the questions they raise in our virtual office or in threaded discussions:

- "What went well for you last week?"
- "What issues or problems need to be resolved to make your learning experience better?"
- What needs to be changed to help you be successful in upcoming assignments?

While responses in a threaded discussion are open for all to see, these discussions encourage side-bar questions that some may feel reticent to post publicly. Such side-bars include private e-mails or phone calls and even face-to-face visits for those able to come to campus; Adobe Connect or Skype support conversations for distant faculty and students to talk in real time, and all of these techniques can be used with small groups as well.

Power of Collaboration & Group Work

Student engagement for me means grappling with concepts, information, and practices in context—the student's, the situation, and the future. Successful engagement brings both visceral and intellectual apperceptions to bear on problems of practice that can be translated from the immediate situation to others across multiple circumstances. Engagement should lead students to assimilate what they are learning, making it their own by integrating it with their experiences, and enabling them to use what they have learned in novel settings over time. However, engaging activities have to be real, related to the students' experiences, and useful to their professional aspirations. One of the ways that I seek to engage students is through group work.

I favor group work over individual work primarily because as future school leaders they must work with and through others to accomplish the tasks necessary to reach school goals. Although I do expect my students to submit some individual products, to clarify their roles in their group work, and to identify their contributions to any products developed, the focus remains on collaboration and working with others to achieve common ends. Our program also requires reflections on learning, and these reflections

are essential to effective learning because students have to think about what they learn, its relations to standards for effective practice, and how such learning applies to future work.

I lean heavily on collaboration and group work because most of what my students do in their professional lives involves working with and through others, often collaboratively. So, learning how to work with others, how to assess others' contributions, and how to adjust for idiosyncrasies and the failures of others is critical a big part of those environments and a big part of learning, doing, and succeeding in those environments. Further, as social beings, students learn more in social interactions around problems of practice than they might in isolation. Through interactions, experiences are tested and moderated, new information is tailored and re-tailored relative to the problem at hand, and better solutions are derived, developed, tested, and advanced.

So after 11 years of teaching online, I have found that structure, repetition, open-communication/feedback, and finally collaboration/group work are a few key elements of a successful online course..

Concluding Thoughts

All in all, I have learned much about my own teaching by starting not with what I want to convey but with what students need to learn. I ask, what do these students in this learning setting need to know and be able to do when the complete their work? By starting here, I am forced to clarify issues of content and application, develop rubrics that illustrate levels of accomplishment in important areas. Further, by focusing on student learning—and letting them know that this is paramount—I empower them to take charge of their own learning. In these ways, students know from the beginning what is expected of them, surprises can be minimized and they understand their role in becoming leaders.

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Bio

Rod Muth is a professor of educational leadership and policy at the University of Colorado Denver, who teaches in the licensing, master's, Educational Specialist, EdD, and PhD programs in the School of Education & Human Development to prepare educators for leadership positions in elementary, secondary, and higher education. On coming to Colorado in 1992, he coordinated the Administration, Supervision, and Curriculum Development (now Administrative Leadership and Policy Studies) program for 9 years, helping to revise it from a traditional, course-based program to one that was domain-based program, a transition point on the way to its current problem-, project-, and performance-based manifestation. In the mid-1990s, Rod helped redesign the old administrative leadership PhD as a schoolwide PhD that focused on problems of practice, using a laboratory approach to educational research and portfolios and annual reviews for student and program assessments. Rod has written extensively on problem-based learning, preparation program coherence, program standards, cohorts in preparation programs, the transition of adult learners into professional roles, distance learning, doctoral programming and research, leadership and power, and educational governance and decision processes.

Chapter 8

Remember the Importance of the Human Touch

Kelly Bergman

Technology can be simply amazing. There are so many things we can do today that were unimaginable even 10 years ago. During this age of innovation, more and more people are arguing about the importance of integrating new technologies into our courses. Just one example is the "ASCD Smartbrief"(ASCD, n.d.), a weekly online publication from the Association for Supervision and Curriculum Development (ASCD). This publication dedicates a section in every issue to celebrating recent applications of technology in educational settings. Headlines include: "Online Games Teach Business Strategies to High-school Students", "iPod Touch Helps Florida Students Spend More Time on Math" and "Many iPad Applications May Be Tools for Educators." However, as we push forward and find new ways to integrate the latest and greatest technology into our courses, we cannot forget the importance of the human touch.

Background

When I first heard about online education, it sounded very impersonal. And to be honest, I wasn't sure if I wanted to have anything to do with it. But before jumping to any firm conclusions, I decided to learn more about it in an effort to make an educated decision about whether or not online education made personal and pedagogical sense to me. I signed up to participate in Summer Web Camp—a weeklong event hosted by CU Online at the University of Colorado Denver to help support faculty while developing an online course (see Lowenthal & Thomas, 2010 for more information on Web Camp). Participating in Summer Web Camp was an amazing introduction for me to online education. I left Web Camp believing in the power and possibility of online education and specifically believing that I could teach online. But at the same time, I also recognized and still believed in the power of teaching certain things in a face-to-face setting. I teach teachers how to teach and, while this can be done online, I strongly believe it is more effective and efficient to have some face-to-face class sessions to model certain behaviors for my students. Because of this, when the time came for me to begin teaching online, I began teaching hybrid courses—rather than fully online—because I wanted to leverage the strengths of both online and face-to-face learning environments.

During my first semester teaching a hybrid course, three of my 15 sessions were face-to-face. I carefully chose what activities would be done in our face-to-face sessions versus those that would be done online. For example, if there were certain strategies or behaviors that I wanted to physically model for students, I planned those for the face-to-face sessions. I challenged myself to develop online activities that would accomplish the same goals that I had set when I was teaching the class in a traditional face-to-face format. For instance, there were many times when I would have small groups meet to do an activity in my face-to-face class and I found that I could have the students do something similar by having them participate in a threaded discussion that was specific to their group. This was a really interesting process because it forced me to look carefully at my content and decide which method (face-to-face or online) was the best

fit for each of my teaching activities. But it also forced me to wrestle with how to maintain a human touch in the online portions of my courses. In the following pages, I briefly explain some of the strategies that I use to add a personal touch to an online or hybrid course.

Adding a Human Touch When Teaching Online

Online learning has been characterized as impersonal and isolating. In ways people tend to think of hybrid courses as addressing part of this problem through the combination of time spent face-to-face and online. But it is way too easy when teaching a hybrid course to assume that all affective types of communication will take place during the face-to-face sessions. The following are some strategies I use to add the human touch to my hybrid courses (but they all are equally applicable to fully online courses).

Pick Up the Phone

I strive to call each student before class begins or shortly thereafter. As useful as email can be, I believe that individually calling students on the phone adds a human touch to my courses. I make sure students know when class begins and how to access the class. I also remind my students about tutorials that are available to help them with the online tools we use (i.e., eCollege and LiveText) in class. Many times, I have to leave messages, but I believe this is still helpful because my students know that I have reached out to them and they can hear my voice (see Dunlap & Lowenthal, 2010 for more on this type of strategy).

Post Pictures Online

I ask each student to post a picture of him or herself in an online threaded discussion or through a social networking site. Even in hybrid courses where you eventually meet face-to-face, I think it's important to put a face with a name. During my first few interactions with each student, I look at his/her picture so I know exactly who I am responding to and remember to add that human touch whenever I can. I also think it's important for students to be able to put names and stories with the faces of their classmates. I have my picture posted in the online syllabus so students can see my face and I also post a picture in the discussion to model for them how to post their picture online.

When I teach a hybrid course, I use the students' pictures to memorize each of their names so that I can greet them by name when I see them for the first time in the face-to-face session. This, too, is one of the behaviors—because I teach teachers how to teach—that I like to model for my students. In an elementary or secondary classroom, knowing students' names is extremely helpful for classroom management. In a post-secondary setting, it is important for developing rapport with your students.

Learn About Your Students

I believe it's really important to learn as much as you can about your students—especially when teaching online when so much of the valuable chit-chat that happens before and after a class and on breaks is missing. I strive to know about my students' interests, what they like to do outside of class, and so forth. This is one of the behaviors that I believe is so important to model for my students because the more we know about our students, the better we can design our instruction to meet their needs.

At the beginning of each semester, I facilitate a discussion where I ask students to tell the class a bit about themselves. As I read the discussion, I make notes for myself

about each student so I can refer to them later. As I find out what students' interests are, I can make personal connections with them. If we have a common interest, we can bond around that. If a student has an interest in something that is new to me, I can develop rapport by having that student teach me a bit about the subject. Also, if a student shares that he or she is a single parent, I know that there may be times when family issues must come before school issues. The information I learn about students helps me better understand and interact with them.

Prior Experience Learning Online

Learning online is strange and foreign to many students. I always ask students about their prior experience learning online because I find that typically those who are brand new to online learning struggle the most. Finding out how many courses they have taken online helps me to identify which students may need additional support.

At the beginning of the semester, I also send out an e-mail to all students and ask them to reply with the answers to questions like "How many online courses have you taken?" and "Why did you choose to take this course online?" I ask students to respond in a private e-mail for two reasons: (a) it helps us check the e-mail system to make sure everything is working properly and (b) answers to these questions might be more personal for students and might better be done one-on-one than in a threaded discussion.

Comfort with Technology

The more advanced we are with our technological skills, the easier it is for us to forget what it's like to be less comfortable with technology. Each time I teach, I try to find out how comfortable each student is with using technology. Technological proficiency is often a hidden curriculum with online learning. We often assume that our students are proficient in the use of technology but this isn't always the case. We need to remember that some students may need more detailed instructions for some activities.

Survey Students

Another strategy I use is that I survey my students during the first few weeks of the course (using a tool like SurveyMonkey.com) to collect feedback on how things are going. Done anonymously; students give me feedback to help improve our course. I make a point of summarizing the feedback and sharing it with students so they know that their voices have been heard. I then use the feedback from the students to make mid-course adjustments. For example, during one survey, I learned that many students preferred to do their online work over the weekend. As a result of this information, I changed the sessions to stay open until Sunday rather than closing them on Saturday. Students appreciate being able to give feedback about the course.

Comment to Every Student

I don't think it's necessary to reply to each student every time he or she posts in the discussion threads. However, I do think it is important to comment to every student in a course. Therefore, I strive to occasionally comment to every student to ensure that I don't leave anyone out. I believe that this shows my active participation and provides a connection to each student. In my experience, students appreciate knowing that faculty members have taken an active role in the discussion and students appreciate the individual attention. I keep a checklist so I can make sure that I respond to each

student. (This is a time when I refer back to students' photos. I like to see whom I'm responding to.)

Personalize Grading

Another way that I try to add a human touch is by personalizing my grading. I specifically try to do this when I am grading students' discussions. I have found that this shows students that I have read what they wrote and that I'm making connections with them. Private responses allow me to provide more personalized feedback than if I were responding in a threaded discussion.

When I grade the discussion in eCollege, I give each student a numeric score and add comments in the comment box. My comments may include something that specifically relates to the student's post, they might pose an extending question, or they might connect to something I learned about them in the discussion at the beginning of the semester. This is one more opportunity to connect with my students.

Keep Track of Assignments

The accountability of turning in an assignment in a face-to-face class is different than in an online class. Unlike in a face-to-face course where students typically turn in their work to a person, at a certain time—students online typically turn in their work individually at different times of the day and often privately. In my experience, it is easy for students to forget to turn in an assignment, to turn it in the wrong place, or to submit it in the wrong format. I use a checklist when I teach online to make sure that students have completed the tasks that I've asked them to and I follow up with them when something is missing. This type of accountability keeps an online class in the forefront for those students who might occasionally forget about it. Further, it provides a bit of human touch in an environment where students might sometimes feel isolated and alone.

Timely Response to emails

Because students do not see their instructor on a regular basis, they need to know that, if they email their instructor that they can count on a timely response. Sometimes they need information before they can proceed with an assignment, other times they just need support and encouragement. I know that some instructors use Twitter as another way to respond to questions in a timely manner (see Dunlap & Lowenthal, 2009); regardless of the tool for communicating, students need to know that they will hear back from their instructor.

Concluding Thoughts

Technology offers many amazing resources and we, as online instructors, should continue to learn about the latest tools and integrate new strategies into our instruction. But in addition to using current technology, we should also challenge ourselves to make sure that our courses have a human touch. If you are hoping to enhance the human touch in your course, I suggest beginning with learning as much as you can about your students and connecting your instruction to their needs. Brain research tells us that students learn best when they are able to make personal connections with the content; getting to know our students is the first step in the process.

My experience has shown that students greatly appreciate the fact that I take time to get to know them and connect my instruction to each of them. My course surveys and FCQs have shown that the additional time it takes to add a human touch is well

worth the effort. Regardless of your content area, I encourage you to continue to use the latest and greatest in technology, and also to remember the importance of the human touch.

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Bio

Kelly Bergman has been an educator for 19 years. She earned her bachelor's degree in Elementary and Middle School Education from the University of Northern Colorado, a Master's degree in Whole Learning from Regis University and an Administrative Certificate from the University of Denver. As a teacher, mentor, and principal in elementary schools, Kelly has always been known for helping others make sense of complex materials and tasks. Most recently, she has had the privilege of teaching teacher candidates at UC Denver.

Chapter 9

Jazzed about Jing

Margarita Bianco
&
Dave McCollom

Technological advances have influenced the way we teach and how we communicate with our students. This is true for both traditional face-to-face courses as well as for online courses. Screen capture tools, such as Jing, can be used in a number of ways to facilitate learning and personalize communication (Griffis, 2009). In the following chapter we briefly explain what Jing is, how you might use it in the courses you teach, and conclude with some specific feedback of students perceptions of using Jing in both face-to-face and online learning environments.

Background

As an Assistant Professor in the School of Education and Human Development, I teach in both face-to-face and online formats. I am always looking for ways to improve my teaching—especially with online instruction. I first learned about Jing in 2008 from a colleague who was enthusiastic about a free, new technology she learned about at a conference. The word "free" caught my attention. I immediately downloaded Jing. Within five minutes, I was creating my first screen capture and brainstorming all the ways I could use this technology. I began using Jing in the courses I teach. I also found ways to use it as a collaboration tool for my research. I have since shared how I use Jing at a number of faculty development presentations.

When I was invited to write this chapter for *The CU Online Handbook*, I thought it would be interesting to collaborate with Dave McCollom, the author of TechSmith's Education Community Blog and a member of TechSmith's Education Advisory Board. Dave's technological expertise coupled with his experience training faculty and K-12 students around the world on how to use Jing, provides great insight into how we can use Jing for teaching and learning.

What is Jing?

Jing is a free application that can be downloaded to your computer (Windows or Mac) from www.jingproject.com. Jing enables you to take screen captures (sometimes called screenshots) and annotate these static images of your computer screen. Jing also enables you to record short videos (5 minutes or less) of onscreen action (sometimes called screencasts). You can then share screen captures and screencasts instantly with others—whether over the web, in instant messages, email, or even embedded in your online course shell. Jing's companion site, screencast.com, makes sharing a breeze. Once your screen capture or screencast is complete, with a click of a button you can easily upload it to screencast.com. Once the upload is complete, screencast.com copies the URL (to your screen capture or screencast which is now uploaded to

www.screencast.com) to the clipboard of your computer, which you can then paste into an email or your learning management system (LMS) to share with students. Further, screencast.com even provides HTML embed code to directly embed your screencasts into your online course. But if you don't want to use screencast.com, you can simply save your screen captures as .png files and your sceencasts as .swf Flash video files and distribute as you see fit. Sound complicated? It really is not. The Jing Help Center (http://help.jingproject.com) has quick and easy video tutorials that will help with all Jing functions.

Once you get hooked on the free version of Jing, it will be just a matter of time before you start thinking about upgrading to the pro version called Jing Pro. Jing Pro costs $14.95 per year and provides some additional features that the free version does not. For instance, with Jing Pro, you get the option to include your webcam in screencasts so that part or all of the screencast can include a video of you. Jing Pro also uses a premium video format (MPEG-4 AVC) that is better for recording rich content from your screen. This video format also produces friendlier file sizes and can be edited in many standard video-editing applications.

Teaching with Jing: The Perfect Companion

There are many ways to integrate Jing into your face-to-face or online instruction. Below are just a few of the ways that instructors have used Jing for teaching and communicating with students.

Introductions

Jing is great for introductions. In the first weeks of the semester, you can create a PowerPoint slideshow of family photos. You can narrate and record the slides introducing yourself and your family to your students. The Jing video can then be uploaded to your LMS for students to access. You can even ask students to create a video about themselves to share with the rest of the class.

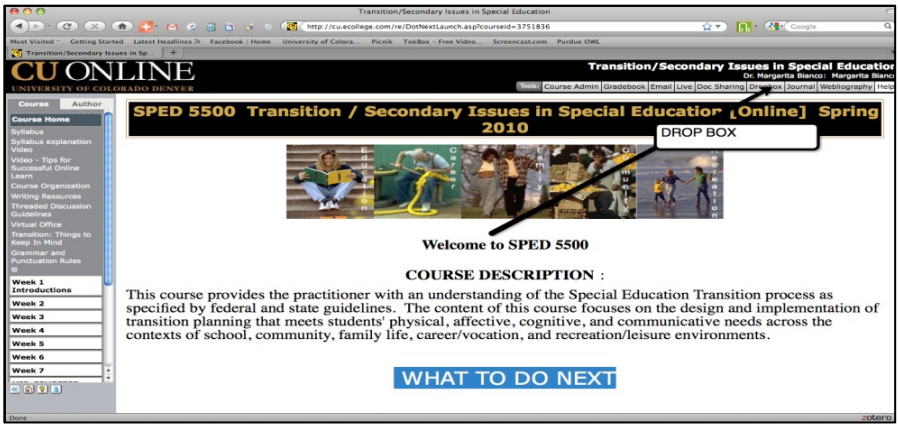
Answering Email

You can also use Jing with email. Sometimes typing out a detailed response to a student's inquiry takes a long time. Instead, you can simply answer the student's questions in a narrated video (in other words, a screencast). We have found screencast responses can be much more personal. By communicating in this way, you can provide a personal and detailed response—and if needed, you can demonstrate where to get more information (e.g. share a website) or how to perform a task (e.g. use the drop box in eCollege—a LMS used at our university).

Explaining Assignments and How To….

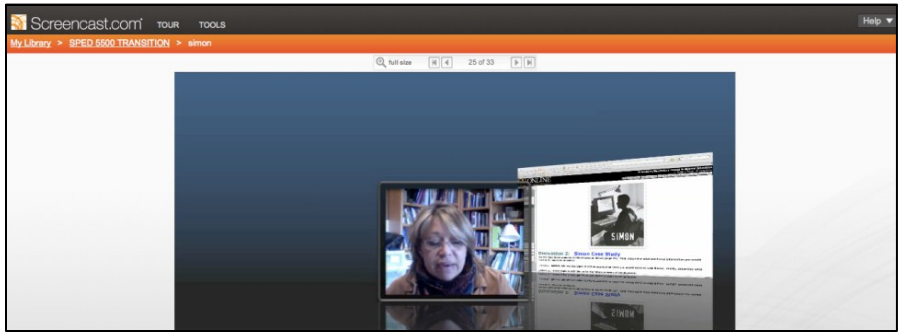
The all text environment of some online courses makes it difficult to give directions or navigate a course (MacDonald & Caverly, 2007). Jing is a perfect tool for explaining assignments and demonstrating "how to…" do almost anything. Explaining assignments can be enhanced when students can see and hear the purpose of assignments and how they will be evaluated. For instance, you can create a screencast where students can see the grading rubric while you explain each component of the assignment. This allows students to listen to the explanation as many times as needed. This alone can reduce the number of questions you get about a specific assignment.

Explaining "how to" do something also becomes easier with Jing. For example, by creating short narrated videos, you can demonstrate how to do things like use tools in a LMS, how to conduct a literature search, or how to use APA style when writing a paper. The value of using screencasting in this way is that it is easier to demonstrate how to do detailed processes than it is to write out detailed instructions (Griffis, 2009).



Introduce and Summarize the Week

Jing can also be used to introduce a week or summarize what was learned in a given week. For both face-to-face and online courses, the first author provides a weekly introduction of the learning for the week by outlining key points to consider and keep in mind. Afterward, she provides a summary of what was learned by connecting discussions to readings and practice. We have found that creating a screencast for these purposes saves a lot of time. There is no longer a need to spend time typing lengthily emails several times a week. In just a few minutes, you can create a visually engaging summary of the week, send the link in an email or post the video to your LMS. For example, the image below is a screenshot of a video summarizing students' work on a case study discussed in class.



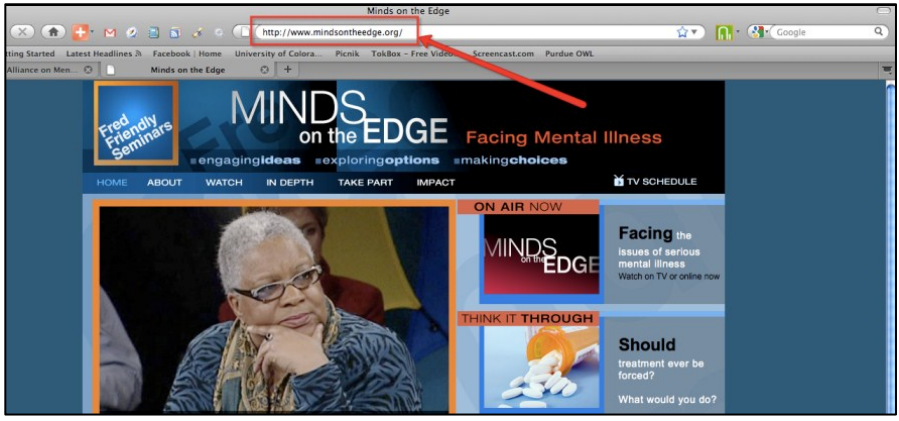
Feedback for Students

Perhaps our favorite way to use Jing is to provide detailed feedback on students' written work. Typically students are asked to submit their work electronically and instructors provide feedback using the track changes function on Microsoft Word documents. Although this system works, instructors can also add a Jing clip. After

reading students' work and commenting on content and professional presentation, you can then create a screencast and essentially summarize your comments. Students will then be able to see the written feedback and hear what you have to say about their work. Personalizing communication with students in online learning environments is frequently discussed as a critical feature of effective instruction (Steinweg et al, 2006).

Explore Content Related Websites

How often do we crowd our syllabi with a list of related websites for students to explore—or simply send students a link to a website? Next time, use Jing to create a virtual tour of content related websites pointing out where to find the information students need to know.



Advising

Finally, we recommend using Jing for advising students. The first author has recently started to explore the utility of using Jing for student advising and has had much success. By creating Jing clips with the student handbook on the screen and narrating students' schedules, you can demonstrate where to find internship forms or outline the requirements of their final portfolio.

Students Use Jing Too

Although the first author has been using Jing as a teaching tool for more than one year, she has only recently started requiring students to download the free version of Jing and include Jing projects as part of their course assignments. For example, students recently had to select one of five articles to read for one of her online courses. Instead of having them summarize the article and share a Word document or type their reactions to the article and post to a threaded discussion, students were required to create a Jing presentation to highlight what they learned. Students were encouraged to be creative in their presentation by using images and talking us through their learning.

Reflecting on the Student Experience

In order to improve teaching, instructors often ask students for feedback on how things are going in class. Thus, it only made sense to ask my students what they thought

about Jing. The following comments,[10] from some of my students at the University of Colorado Denver, illustrate what they think about using Jing in the classroom.

When asked about getting feedback on assignments by using Jing, one of my students shared the following:

> *Feedback on my assignments using Jing and hearing you talk is much more valuable than just getting back papers with track changes and written comments. The use of Jing has provided much more personal and detailed feedback and has allowed me to get information on the direction I should take with future assignments. It also eliminates -or at least decreases any confusion or questions I might have regarding what written comments refer to. [Kim Decker]*

Another student in a face-to-face class humorously commented on how much easier it was to have his paper critiqued using Jing.

> *When you TORE into my paper it was nice to actually hear your voice and know what you wanted from me instead of marks on my paper. Instead of a marked up paper, or a typical "good job" and blowing off the hard work I put into it you actually gave me helpful insight on how to write a graduate level paper. You explained to me, in your own words, what you expected of me without telling me exactly what to write. You showed me my paper and scrolled through it and told me what I was lacking and asked me to become a critical thinker and writer. At first I was nervous about not doing so well on my paper, and then when you explained it to me, it gave me a whole new perspective and thought process of writing. This whole process was great because I did not have to worry about setting up an appointment to discuss my paper; instead it was thoroughly explained using Jing. [Christian Eaves]*

Another student commented on the personal nature of using Jing for feedback

> *It's way more personal to get feedback via Jing than just the written feedback on the documents. It made me feel good that you took the time to go the extra step in order to make sure that I understood your feedback. I thought using Jing for our discussion group was really fun! I found that it was a more personal way to express my thoughts on the topic. And I really liked hearing others' Jing clips, I was able to put a voice and a personality to all of my classmates that I have been interacting with all semester.*
> *[Tracy Piniarczyk]*

Students also commented on how the short video clips facilitate their learning.

> *The short videos further my learning by providing many of the benefits of a face-to-face course experience. Although it is an online class, the clips provide an opportunity for us to hear a real-life explanation of assignment expectations and discussion of course topics. Again, the use of Jing minimizes confusion and questions I would have otherwise. Along with Jing, the other uses of technology in this course, such as the video of panel members, have helped me to see how the course material should and can be applied to real-life situations and individuals.*
>
> *…the Jing clips do give me a sense of closure from one week to the next, which is really nice. The Jing clips do a nice job of reflecting on the previous week and giving me a little direction for the next week.*
> *[Tracy Piniarczyk]*

[10] Students' permission was obtained and granted to include in this chapter.

One student commented on liking the visual aspects of Jing.

> *I like the "visual" aspect of Jing the most. When you have comments regarding assignments, I can see directly what you are referring to. I also like the little intro to each week's assignments via Jing. I've also used the little intro to the assignments when I try to recall what you had said about a specific assignment and how you wanted it completed. Don't get me wrong I like the "paper" syllabus and written instructions too. [Karen Minnotte]*

Most importantly, however, students are beginning to think about how they can use Jing and other screencasting software in their own practice as educators

> *I teach student with significant support needs and I am always trying to find new ways to keep them engaged and involved in their learning. Some ideas I have had for incorporating Jing into my classroom: have students put together a power point of their community words with pictures and text and have them narrate the slides by saying the word, if we have a camera, using Jing to practice their interview skills so they can review and reflect on their interviewing skills. I also think this would be a really great way to get information to parents. For example, I just sent home a permission slip for some field trips coming up. How great would it be for the parents if they also received a Jing clip that has me describe the field trip permission slip, where they have to sign and more about what the field trips were about.*
> *[Tracy Piniarczyk]*

Conclusion

Using Jing, and other screencapture software products, allows instructors to personalize instruction and communication with students. Technological advances continue to influence the way we teach and while some instructional technology may be expensive and complicated to use, Jing is easy and free.

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Bios

Margarita Bianco is an Assistant Profession of Special Education at the University of Colorado Denver. She has nearly 20 years of classroom teaching experience, most of which was in urban settings working with students with disabilities and culturally and linguistically diverse student populations. Her research interests include gifted students from underrepresented populations including twice-exceptional and culturally and linguistically diverse learners. Dr. Bianco received the 2004 Council for Learning Disabilities (CLD) Outstanding Researcher Award for her research on the effects of disability labels on teachers' recommendations for gifted programs.

Dave McCollom began at TechSmith as an IT specialist in 2006 before moving into his role as education evangelist. Currently, he works closely with users around the globe, specifically focusing on the educational markets. In his position, he conducts ongoing and direct conversations with customers in order to influence continuous product improvement. Dave's outreach to the educational community includes attending conferences both in the U.S. and abroad as well as visiting schools and classrooms for one-on-one and group training sessions with educators.

Chapter 10

Getting to Know You: The First Week of Class and Beyond

Joanna C. Dunlap
&
Patrick R. Lowenthal

The first week of class… whether on-campus or online, we always plan a few orientation and get-to-know-you activities in an attempt to get our courses off on the right foot. One thing we have learned about these types of activities is that they cannot—and should not—take place only during the first week of a class. To really support students and help build a productive online learning community, these types of activities need to occur throughout the semester. Below are a few activities we have used to help students get oriented to and familiar with the course structure and materials, their course colleagues, and us.

Orientation

In a face-to-face course, it can be deadly boring to spend the first class reading through the syllabus. However, there is important information in the syllabus that we want students to know and keep track of. In online courses, it can also be boring reading through the syllabus and other course materials and, therefore, we have found that students sometimes don't go through all of the course materials as precisely as is needed to be successful in the course. Here are a few things we have done in our online courses to help students get oriented to the course.

Orientation Videos

One approach we use is to create a set of short (less than 5 minutes) orientation videos, with each video walking students through the course shell, learning activities, and projects. Using Jing, we have created screencasts showing our students around the course shell (see Chapter 9 for more uses of Jing). This is especially helpful for students who are new to online courses. In addition to the orientation benefits, our students are also oriented to us as their instructors because of our use of humor and stories while explaining various course design decisions.

Course & Syllabus Scavenger Hunt

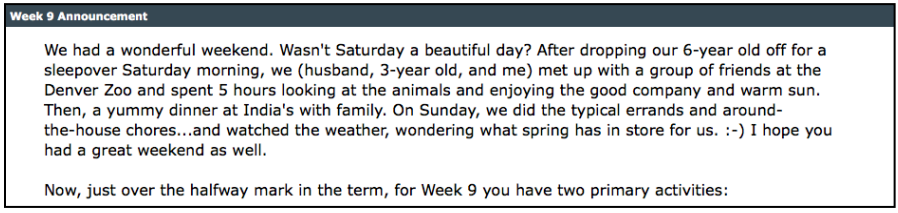
Using the quiz tool in our learning management system, we set up a course and syllabus scavenger hunt that students have to submit by the end of the first week. To complete the 12-question scavenger hunt, students have to read the syllabus, locate materials in the course shell, and watch the orientation videos. The results of the scavenger hunt reassure us that students are locating and tracking important course information, and alerts us to any misconceptions or confusions that individual students have about the materials or the assignments. Example questions include:

- In your own words, what are the learning objectives for this course? What is the reason for listing the program competencies with the learning objectives?
- Why is "creative" part of the course title?

- There are four projects for the course: Presentation Makeover Magic, Job Aid Makeover Spectacular, Presentation Prowess, and Design Lessons Learned. Which project are you most looking forward to working on? Why?
- Why are the weekly agendas for each week's learning activities hidden at the start of the semester?

Weekly Announcements

At the start of each week (which in our online courses is Monday since we set up the weeks to go from Monday to Sunday in the course shell), we post a new announcement orienting students to the activities of the week. Even though this information exists elsewhere in the course, we like to provide a more personal announcement about the week. We start each announcement with a brief description of the past weekend's events with a photo or two (usually of us with our families). Then we provide students with a reminder about how they should focus their time and energy during the week. We end each announcement with a reminder about how to connect with us and a wish for a great week. These announcements can be shared by posting an announcement in the course shell, by email, or by using a tool like Jing to create an audio and/or video announcement.

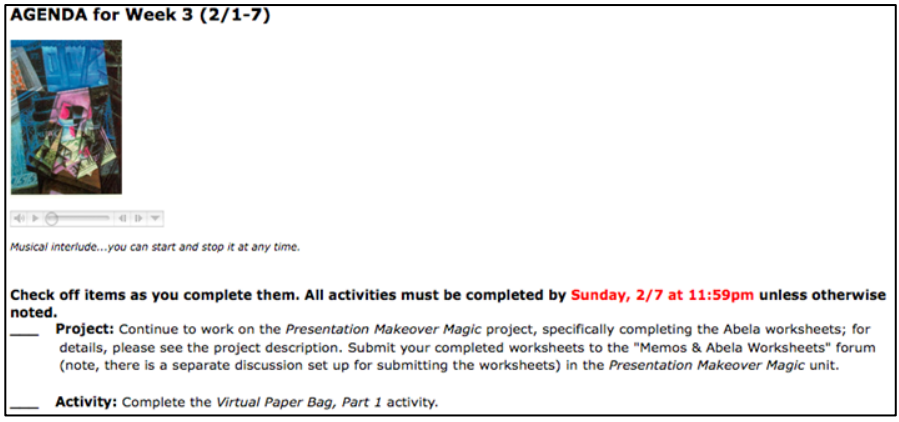

Week 9 Announcement

We had a wonderful weekend. Wasn't Saturday a beautiful day? After dropping our 6-year old off for a sleepover Saturday morning, we (husband, 3-year old, and me) met up with a group of friends at the Denver Zoo and spent 5 hours looking at the animals and enjoying the good company and warm sun. Then, a yummy dinner at India's with family. On Sunday, we did the typical errands and around-the-house chores...and watched the weather, wondering what spring has in store for us. :-) I hope you had a great weekend as well.

Now, just over the halfway mark in the term, for Week 9 you have two primary activities:

Weekly Agendas

For each week, we create a printable weekly agenda checklist to help our students track what they should be working on during the week. Again, although this information exists in the course's master calendar, it helps students to have the week's activities laid out in checklist format.


AGENDA for Week 3 (2/1-7)

Musical interlude...you can start and stop it at any time.

Check off items as you complete them. All activities must be completed by Sunday, 2/7 at 11:59pm unless otherwise noted.

___ **Project:** Continue to work on the *Presentation Makeover Magic* project, specifically completing the Abela worksheets; for details, please see the project description. Submit your completed worksheets to the "Memos & Abela Worksheets" forum (note, there is a separate discussion set up for submitting the worksheets) in the *Presentation Makeover Magic* unit.

___ **Activity:** Complete the *Virtual Paper Bag, Part 1* activity.

Getting To Know Each Other

We do not think it is very realistic to get to know people—especially in an online course—with one share-your-bio activity during the first week of class. Building relationships and community requires multiple opportunities to share and connect. So, every two to four weeks during the semester, we reengage students in getting-to-know-you activities. Below are a few of the activities we use in our online courses.

Superhero Powers

For this activity, using VoiceThread, students share a photo and record their response to the following prompt:

> *What are your superhero powers? What is your superhero moniker? And, how do your superhero powers help you in life?*

Their creative responses are so much fun. And we really learn about the assets that each person sees as her or his strengths. Superhero Powers is a very positive approach to a typical share-your-bio activity that also results in learning more about each person's playful side and creative spirit.

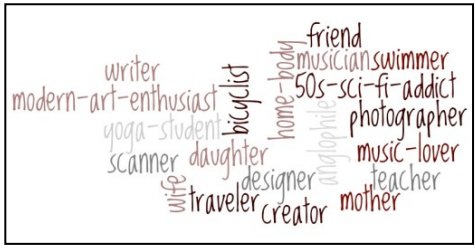
Virtual Paper Bag

For this activity, we ask students to pick five items that represent who they are and what is important to them. They pull together visual representations of their five items for a virtual paper bag. They post their five images to Flickr (or another tool of their choosing, as long as the rest of the class can easily access their collection in the end). Once everyone has posted their virtual paper bag collection of images, students review each other's collections, and engage in a discussion of why those items were selected and what the items "mean." The results are that students learn about each other's passions, values, families, and the like; learn about differences

and similarities; and learn each other's stories. This activity helps students feel more connected than they did before. And they remember details about each other because of the stories told and the emotion involved in sharing personal details about one another.

"If You Were a Tree" Wordle

Similar to the virtual paper bag activity, for this activity we ask students to create a Wordle word cloud using 20 words that represents who they are. This activity encourages students to reflect on how they define themselves, and then to represent those definitions using only 20 words. Students then review each other's word clouds, and discuss the commonalities, differences, and surprises.



Soundtrack of Your Life

As another way for students to get to know each other, we ask students to share music. For example, we ask them to share one song that inspires and motivates them; or create a playlist of six songs: two that represent their past, two that represent their present, and two that represent their planned/hoped for future. After students share their music, the group asks questions about the selections—similar to a 20-questions activity—to figure out why each student selected the song(s) she or he did. The students consider the group's shared interests, differences, and so on (e.g., how many folks like jazz, or female songwriters, or sad songs). We use tools such as Songza, Blip.fm, playlist.com, and Grooveshark for this activity, but there are many other digital jukebox tools out there from which to choose (see Dunlap & Lowenthal, 2010b for more on how we use music in our online courses).

A 5-minute Conversation

During the first few weeks of our online courses, we invite students to participate in a 5-minute phone conversation. Although it is an opportunity for students to ask questions about the course, the only agenda for the conversation is that we must hear each other laugh. We do this so that the students feel more connected to and less distant from us. About half of the students typically take us up on the invitation at the beginning of the course, although—with frequent reminders that the invitation still stands—we often end up talking with most if not everyone in the course at some point in the semester (see Dunlap & Lowenthal, 2010a for more on the power of a 5-minute phone call or one-on-one emails).

With a Cherry on Top

After all of the getting-to-know-you activities throughout the semester, we like to end courses with an experience that celebrates, (1) what we have accomplished in the course as individuals and collaborators, and (2) the success of our learning community and our established friendships. One activity we like that achieves these two objectives

is what we refer to as *Lessons Learned*. For example, in the Creative Designs for Instructional Materials course, students are given the following directions:

1. Consider what you have learned about the creative design of instructional materials. What are you sure about? What do you believe now? What advice/words of wisdom do others need to know about?
2. Pick one of those design lessons learned and write it down. Design it digitally. Photograph it. Draw it. Use paint, sculpture, whatever. I don't care as long as it's interesting.
3. Post a digital photo of your creation to our Flickr group account at http://www.flickr.com/groups/it6710fall2009/
4. Write up an explanation supporting your design, and post it to this project's discussion forum.

Using Flickr, students post their visual representations of a lesson they have learned from the course. This is a fun and creative way to close out a course experience, and the collection of lessons learned becomes a valuable take-away from the course and from our time together. And, it offers one more chance to connect with each other and to get to know a bit more about each other's perspectives and values.

Conclusion

We are strong believers in the power of community and the benefits of spending time getting to know each other—especially in online courses. However, we have found over the years that one activity at the beginning of the semester is often never enough. Therefore, over the years we have continually strived to come up with new and creative ways to build a productive online learning community—one in which everyone feels like they know each other—throughout the entire semester. We have shared a few of the ways that we do this. We hope that one or two of the strategies we shared resonate with you and that you experiment with building some getting to know you activities throughout the semester the next time you teach online!

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Bios

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Patrick R. Lowenthal is an Academic Technology Coordinator at CU Online at the University of Colorado Denver. He is also a doctoral student studying instructional design and technology in the School of Education and Human Development. His research interests focus on instructional communication, with a specific focus on social and teaching presence. He also has a MA in Instructional Design and Technology as well as a MA in the Academic Study of Religion.

Chapter 11

"What's Your Story?" Using Digital Storytelling to Enhance 21st Century Skills

Sherri Clemens
&
Melissa Kreider

It makes sense to begin this chapter on digital storytelling with a story of our own. Serendipity brought us together. In 2005, during our first year working together as teachers at Trailblazer Elementary in Highlands Ranch, CO, we had the opportunity to attend a teaching and learning conference in downtown Denver. Excitement about learning new ways to integrate technology into classroom instruction was palpable for both of us as we walked through the seemingly endless hallways of the convention center. We walked into a Discovery Education session about using digital media to create stories. The room was packed and we were lucky enough to grab a seat on the floor to see the magic happen. The presenters took a simple Discovery Education video on hurricanes, and pulled it into iMovie, and then asked an audience member to come up to tell a story that related to hurricanes. They recorded her voice as the video played, and our first digital storytelling experience was born. We instantly knew that this exciting tool would transform our teaching forever! And while serendipity brought us together…. storytelling keeps us connected.

Our journey with digital storytelling has evolved and grown over the years. We have been students, teachers, and presenters of digital storytelling. We have implemented some best practices into our own K-5 classrooms while sharing with many others—including other K-12 teachers, corporate trainers, undergraduate and graduate students—how to use digital storytelling to meet their own needs. Digital storytelling has become a way of life in our classroom and helped us to reach and engage our 21st century students in a way that traditional methods could not. In the following chapter, we explain how we use digital storytelling in our K-5 classrooms—which focuses on having students create their own digital stories—but many of the strategies can and should be used in the undergraduate or graduate classroom as well.

What is Digital Storytelling?

So what is digital storytelling? Well, digital storytelling is, "a first person narrative told in the writer's spoken voice. It is combined with a variety of media including images, audio, and sometimes video to convey an instructional objective as part of a larger instructional unit." And while technology and media are needed to create digital stories, digital storytelling begins and ends with a first person narrative. But while "the intention of digital storytelling is to stimulate reflection and deeper learning" (Sandars, Murray, & Pellow, 2008), using technology in the classroom can also serve as a "hook" to get students excited about their learning and the products they will create.

National Educational Technology Standards & The 21st Century Student

The International Society for Technology in Education, also known as ISTE, is responsible for the National Educational Technology Standards (NETS). While these standards are written to guide K-12 teachers, they can and should serve as an indicator

to institutions of higher education of changes coming down the line. In 2007, ISTE updated these standards placing more emphasis on creativity, collaboration, critical thinking, information fluency and innovation than on the ability to operate the technology.

ISTE, like many others, no longer sees technology as a separate product—rather, it is something that should be integrated into all areas of student learning. The 21st century student comes to us with a different background and different experiences than even a student from 10 years ago did. We believe that because of this (as well as the changing world around us) our teaching methodologies need to change and adapt to meet their ever-changing needs and learning styles. We are preparing our students for jobs that may not exist yet. Because of this, we need to make sure that we arm our students with the skills needed to succeed in the future.

But if we want our students to be creative and innovative learners, then we as educators need to model the types of skills and abilities needed as well as to develop the types of learning environments that can make this happen. In other words, our pedagogy needs to promote digital aged literacies, and digital storytelling is a perfect way to do this.

Digital Storytelling & Digital Aged Literacies

Digital storytelling is a powerful instructional strategy because it addresses things like creativity and innovation, communication and collaboration, research and information fluency, critical thinking, digital citizenship and technological proficiencies to name a few (which are all aspects of the NETS). In the following paragraphs, we will point out how digital storytelling can do just this.

Creativity and Innovation

Digital Storytelling fosters creativity and innovation by putting the author into a first person point of view. Students must envision and describe emotions, decisions, and moments of change. While facts are easy to find, creating scripts for digital stories allows a creative outlet for students to interact with the material. Students' work on creating a first person script that follows a story line rather than a documentary-style movie.

Communication and Collaboration

Part of the digital storytelling process is recording one's script with one's own voice. This brings an entirely new element to the work changing the writing process into a performance. The voice needs to convey emotions as well as reading fluency through pacing and economy of words used. To help bring the story script to life in the most effective way possible, a collaborative story circle can be used as part of the editing process. A story circle is a small group of authors who read and share their rough draft of their story in preparation for the final recording. Within the story circle, authors are given direct feedback and suggestions from their peers. The script can then be revised into its final version. This collaboration and communication with others is an essential part of the digital storytelling process we use in our classrooms.

Research and Information Fluency

In order to write creatively about a topic, students need to have a deep understanding of the curriculum that they are developing a story about. It is at this stage in the writing process where students must research and develop their ideas and

structure. Students must evaluate and organize their data and information to help them build a better understanding of their topic.

Critical Thinking, Problem Solving, and Decision Making

Typically in education we have taken ourselves out of the curriculum and worked on restating other people's facts and impressions. With digital storytelling we are asking our students to put themselves firmly in the middle of the topic, and share with us their impressions, emotions, and opinions of the subject area. This is a stretch from the ubiquitous summaries that are found in the average classroom. When creating scripts for digital stories, students are in charge of demonstrating their learning by combining their background knowledge and research with critical thinking and decision making skills to produce a story of the events as they see them happening. Rather than regurgitating facts, students have to create their own understanding of the facts learned in a creative way.

Digital Citizenship

Many students see online sources as unlimited and available for any use. When creating digital stories, fair use and ethics must be modeled and used. We always say, "Just because you can, doesn't mean you should." In this digital age, it is easy to take any song, movie clip, image, sound, etc., and use them in your digital projects. Creating digital stories though gives educators an opportunity to talk to students about these issues and to make sure students understand the importance of copyright and intellectual property.

Technology Operation and Concepts

Once the script is finished, the digital story creation begins. Considerations for hardware and software come in to play. Time is an important factor in determining which road to take. See Table 1 for detailed information and technology considerations.

Table 1: Software and Hardware Considerations

Software	Time Considerations	Final Product
Movie Making Software (iMovie, Final Cut, Movie Maker, Adobe Premier)	The most time intensive way to create a digital story	Professional looking movie that can include titles, effects, transitions, video, and images; it has the ability to be burned to DVD
Podcasting (KidPix, Garageband, Photostory)	Somewhat intensive-less than movie creation, but time is still required for media selection	A slideshow-like feel with basic editing capabilities
Web 2.0 (Voicethread, Slideshare, Gcast)	Time to gather resources, but the final product should be done in one sitting--potentially no saving)	Variety of online embedded final stories with limited editing capabilities
Presentation Software (Powerpoint, Keynote)	Time to gather resources, could be done in as few as one or two classroom sessions depending on preparation	It will look like a slide show presentation, and can be exported to movie format

The Creation Process

So we have talked about what digital storytelling is and the benefits of using it in the classroom. We are now going to quickly go over the digital story creation process and then conclude with some best practices we use when using digital storytelling in our classrooms.

Once students have identified a topic, done significant research on the topic, written a rough and final draft of their script and recorded their story, it's time to start developing their digital story. We aren't going to go into too much depth about this process because the technology you choose to use will change this process to some degree. But generally after the script has been written and recorded, students find images and music to compliment the story and they add these to the tool they are using and then export the final story into a format that others can view (typically as a movie).

Best Practices

It is easy to get enamored with the technology but we strongly believe that it's the pedagogy and not the technology that makes the difference. Before we integrate digital storytelling into a unit, we begin with the essential question. The essential question is the big idea that students should be able to answer through the development of the digital story. Once our essential question is developed, we then focus on developing the task and sample writing prompts. We have included an example of these in Table 2. These are focused on a unit about the American Revolution.

Instructor modeling is very important to the process. At the beginning of every digital storytelling unit, we create our own digital story sample for students to see a model. If multiple writing prompts are used, then an instructor sample is made for each of the prompts.

Table 2: Digital Storytelling Sample Unit with the American Revolution

	Writing Prompts
Essential Question: How have events from the past influenced the present?	**Persuasive Letter:** Write a letter that persuades someone of your point of view of the war and for independence. For instance, if you are writing as a colonist, you would write a letter to King George or a redcoat persuading them why you should be able to be independent from Britain. If you are writing from the point of view of King George or a redcoat, then you would persuade the colonists why they would stay with British rule. As you write your script, think about how life would have been different if we would have stayed with British rule.
Task: You will be creating a digital story that centers around the events of the American Revolution. You will be using media from the Library of Congress including music and images.	**Event Diary Entries:** Write a diary from the perspective of someone involved in the American Revolution like a colonist, a redcoat, a Native American, etc. In your diary, explain what happened in the event from the American Revolution from the point of view of the person that you have chosen and how that event affected the American Revolution.

Resources: **Patriotic Melodies from the Library of Congress** http://lcweb2.loc.gov/diglib/ihas/html/patriotic/patriotic-home.html **Pictures of the Revolutionary War from the National Archives** http://www.archives.gov/research/american-revolution/pictures/	**Declaration of Independence:** Tell the story from the point of view of someone who helped to write the Declaration of Independence like Thomas Jefferson, John Adams of Benjamin Franklin. Explain their struggles with writing the document, why they chose the four sections that they did, and why their involving helped to change the history of the United States of America.

Historically, digital stories are between 275-375 words so that the finished story is no longer than 2-3 minutes in length. We try to keep our students' stories within this timeframe because it helps them tell a concise, but powerful story.

We also strive to have each story include certain elements. The Center for Digital Storytelling teaches that every digital story needs to have seven elements included (See Table 3). Thus, we strive to make sure that each of these seven elements are included in our students' stories. The difference between a digital book report and a digital story often is related to whether students have done things such as taken a point of view or included emotional content.

Table 3: The Seven Elements of Digital Storytelling

Element	Description
Point of View	The narrator of the story.
Dramatic Question	A moment of change.
Emotional Content	The way people connect to the story. The use of real, human emotions within the script.
Pacing	The time spent in the story including the pausing within the script and the amount of pictures used.
Economy	Using just the right amount of media to support your story.
Voice	Your voice telling the story in a natural way.
Soundtrack	The music behind your story.
Scene (An additional element)	Focusing and narrowing in on one aspect of the story.

Adapted from Lambert (2007

We also spend a good deal of time focusing on assessment. Digital storytelling is more than just a fun activity—it is meant to address instructional goals. Therefore, we have developed a rubric to assess students' final project. We share this rubric with students before the script writing process begins to help provide expectations for the final project (See Table 4).

Finally, we believe in celebrating each other's work. At the end of the digital story creation process, all participants take part in a celebration and story viewing. Every digital story needs to be viewed, acknowledged, and celebrated for the effort and content that is shared. Depending on your age group and audience, this might include posting your students' stories online for others to view.

Table 4: Sample Digital Story Rubric

Script Writing			
4	**3**	**2**	**1**
The script establishes a purpose early on and maintains a clear focus throughout. It is evident that the writer researched their topic and used that research within his/her script. The writing includes many vivid supporting details. The script is written in first person.	The script establishes a purpose early on and maintains focus for most of the presentation. It's evident that the writer researched their topic and used that research within the script. The writing includes many supporting details. The script is written in first person.	In the script there are a few lapses in focus, but the purpose is fairly clear. The writer may have not shown his/her research in the writing. The writing includes few supporting details. The script is written in first person.	It is difficult to figure out the purpose of the presentation. The student does not show any relevant research. The writing has few to no supporting details. The script is not written in first person.
Grammar			
4	**3**	**2**	**1**
Grammar and usage were correct (for the dialect chosen) and contributed to clarity, style and character development.	Grammar and usage were typically correct (for the dialect chosen) and errors did not detract from the story.	Grammar and usage were typically correct but errors detracted from story.	Repeated errors in grammar and usage distracted greatly from the story.
Voice-Pacing			
4	**3**	**2**	**1**
The pace (rhythm & voice punctuation) fits the story line and helps the audience really "get into" the story.	Occasionally speaks too fast or too slowly for the story line. The pacing (rhythm and voice punctuation) is relatively engaging for the audience.	Tries to use pacing (rhythm & voice punctuation), but it's often noticeable that the pacing doesn't fit the story line. Audience isn't consistently engaged.	No attempt to match the pace of the storytelling to the story line or the audience.
Images			
4	**3**	**2**	**1**
Images create a distinct atmosphere or tone that matches different parts of the story. The images may communicate symbolism and/or metaphors.	Images create an atmosphere or tone that matches some parts of the story. Image choice is logical.	An attempt was made to use images to create an atmosphere /tone but it needed more work.	Little or no attempt to use images to create an appropriate atmosphere/tone.

Soundtrack-Emotion			
4	**3**	**2**	**1**
Music stirs a rich emotional response that matches the story line well.	Music stirs a rich emotional response that somewhat matches the story line.	Music is ok, and not distracting, but it does not add much to the story.	Music is distracting or inappropriate,
Bibliography			
4	**3**	**2**	**1**
All pictures and music are correctly cited (using Noodletools) at the end of the movie.	Most pictures and music are correctly cited (using Noodletools) at the end of the movie.	Pictures and music are incorrectly cited.	No bibliography used.

Conclusions

We have tried to briefly describe what digital storytelling is, the benefits of using it in your classroom, and finally some best practices to consider when using digital storytelling for instructional purposes. But perhaps the best way to see the power of digital storytelling is to start watching some digital stories at the Center for Digital Storytelling (http://www.storycenter.org/stories/) or better yet—create your own!

Digital storytelling has changed our teaching and in many ways changed our lives. We hope it can do the same for you!

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Bios

Sherri Clemens is a technology instructor at Trailblazer Elementary in Douglas County School District. She has been working with digital storytelling since 2005 and received in-depth training from the Center for Digital Storytelling. Sherri has also participated in digital storytelling workshops through the Museum of Colorado History to create neighborhoods of Denver story exhibits. Sherri was selected as an Apple Distinguished Educator for the class of 2007, and is a Google Certified Teacher and SMART Exemplary Educator. She works with students and teachers by bringing best practices of digital storytelling to their classrooms and works as an instructional technology leader in Douglas County which allowed her to earn the DCSD Apple Digital Educator Grant in 2006. She mentors and trains teachers across the district in effectively using technology in the classroom. Sherri's Bachelor's degree is in Elementary Education from the University of New Mexico, and her Master's degree is in Information and Learning Technologies from the CU Denver, 2002.

Melissa Kreider is a technology instructor at Cottonwood Creek Elementary in Cherry Creek School District. Melissa's Bachelor's degree is in Communications from Kent State University. She earned both her teaching degree and Master's degree from CU Denver (Information and Learning Technologies - 2004). Melissa was awarded a SmartBoard, projector and "clickers" from the Morgridge foundation and earned the DCSD Apple Digital Educator Grant in 2006. She has also presented sessions on Digital Storytelling with Sherri at the Technology in Education (TIE) conference in June 2006, 2008 and 2009, at the CU Online Faculty Conference on Digital Storytelling, May 2009, and for the AORN nursing conference in 2010. Melissa teaches staff development courses for Douglas County School District on the topic of digital storytelling.

Chapter 12

Telling Stories and Teachable Moments: The Possibility of Adobe Connect

Barbara J. Dray

With the rise in online learning, instructors continue to grapple with ways to make personal connections with their online students in heavily text-based learning environments. In face-to-face courses, personal interactions with students happen naturally. Students get to know the instructor's personality when instructors share personal stories or experiences as teachable moments that occur incidentally or in the moment in a face-to-face course. In online courses, though, instructors often struggle with replicating this impromptu style of telling personal stories or interacting with students in general (Dunlap & Lowenthal, 2009).

Digital storytelling is one increasingly used approach to telling personal stories online. According to the University of Houston's Educational Uses of Digital Storytelling website, digital storytelling is the practice of using computer-based tools to tell stories that focus on a specific topic and contain a particular point of view. Digital stories contain some mixture of computer-based images, text, recorded audio narration, video clips and/or music. They vary in length, typically lasting between two and ten minutes and "range from personal tales to the recounting of historical events, from exploring life in one's own community to the search for life in other corners of the universe, and literally, everything in between" (Robin, 2009, p. 431). In the following pages, I share my experience using digital storytelling in the online courses I teach in an effort to connect with my students and to recreate those often lost teachable moments in online learning environments.

Adobe Connect

Relatively new to online learning, last year, I found myself searching for a way to infuse stories into my courses and to make personal connections with my students, so that my students could get to know me as a person as well as their instructor. About this time, I was introduced to a tool called Adobe Connect. Adobe Connect is a web conferencing tool that was created for hosting live web conferences and seminars. Adobe Connect enables you to share your computer screen with others, upload and share specific documents (e.g., PowerPoint presentations, photos, pdfs, images, etc.), surf the Web, while at the same time use a basic web cam to broadcast a video feed of your face. It also enables users to record and easily distribute recordings of their web conferences.

Initially online instructors turned to Adobe Connect to conduct synchronous activities (e.g., virtual office hours, live chat sessions). More recently, though, instructors have begun using Adobe Connect for asynchronous activities as well (e.g., recorded lectures, recorded guest presentations, digital stories, student presentations). While there are other tools that can accomplish many of the synchronous and asynchronous activities previously mentioned (e.g., Jing is a great tool to record lectures and digital stories—as long as you keep it under 5 minutes), I found that Adobe Connect serves as a nice one-stop-shop to accomplish many of these instructional activities and specifically an easy to use tool to record digital stories.

Telling Stories to Build Community

Typically in the beginning of my face-to-face courses, my students and I spend the first few classes engaged in community building activities, sharing personal information about ourselves, and sharing aspirations for the course. I have tried to accomplish these same types of things in my online courses using asynchronous discussions. And while I have found that asynchronous discussions can easily accomplish *some* of these community building activities, I continued to feel disconnected from my students and often sensed that my students were not really "getting to know me" which I suspected had something to do with the heavily text based format of asynchronous discussions. I wasn't sure though what to do about this.

After learning more about Adobe Connect, I began to think that this tool might help in addressing these problems of disconnectedness, social presence, and over use of text-based communication (see Lowenthal & Dunlap, 2010 for more on this). After getting some basic training on Adobe Connect, I developed a digital story to introduce myself to students [https://connect.cuonline.edu/p93407692/].

While there are a number of ways you can do this, I basically selected photos of hobbies, family members, and favorite places I like to go. I then uploaded the photos to Adobe Connect through the document share pod. Once I had my photos uploaded, I thought about what I wanted to say. When I felt like I generally knew what I was going to say (i.e., the story I wanted to tell), I practiced telling my story while transitioning from picture to picture with the camera pod on. After a few practice runs, I clicked the record button and simply told my story. I addressed things like my expectations of students in the course, why I became a special educator, a little bit about my philosophy of education, and then shared about who I am when I am not teaching online, toggling between photos of my dogs and favorite places. Once I was done, I clicked the record button to stop recording and copied the URL to the recording into eCollege—the learning management system used in the School of Education and Human Development. But I didn't stop there. I also asked students as a follow-up to introduce themselves and to share photos of themselves in an asynchronous threaded discussion. The feedback from students was positive. They commented that they appreciated being able to see me and that they felt more connected to me as their instructor. For example one student said, "I am really enjoying this way of getting to know one another. It definitely helps to see and read about classmates even though we are online." Another student stated, "Thank you for posting your video intro. Most of my classes at UCD have been online and the intros really help me to have a connection with those in the class." All in all I think it really added to the development of a community of learners within the online environment.

Telling Stories to Connect to Course Content

As a teacher educator in special education, a central component of my classes are the stories I tell. Being a former teacher myself, I often interject stories of my teaching days as well as personal experiences with my brother who is Deaf as a way of connecting with the course content, demonstrating practical application, and providing an opportunity for students to get to know me better not only professionally as a fellow teacher but personally. I find the stories provide a rich context for us to "bring the course content to life." Students also report feeling more connected to the material and have an easier time applying the content to their own teaching practices. In addition to telling stories to build community, I also use stories to connect students to the course content. So it was not long before I began finding ways to use Adobe Connect to tell these types of stories in my online courses. I basically use Adobe Connect to create two types of digital stories to connect students to the course content: demonstration of key concepts and as an anchor for students to apply key concepts.

Demonstration of Key Concepts

I have found that it is sometimes difficult to demonstrate key course concepts in text alone. Therefore, I began using Adobe Connect to create digital stories to demonstrate key concepts. For instance, in one of the courses I teach I have students develop an Eco-map (i.e., a graphical representation of the different systems that affect one's life). I wanted to show students how to develop an Ecomap with a family to problem solve and identify resources accessible to a family. An Ecomap can be used as an alternative to an interview in getting to know a family and building a relationship to better support their student's educational needs.

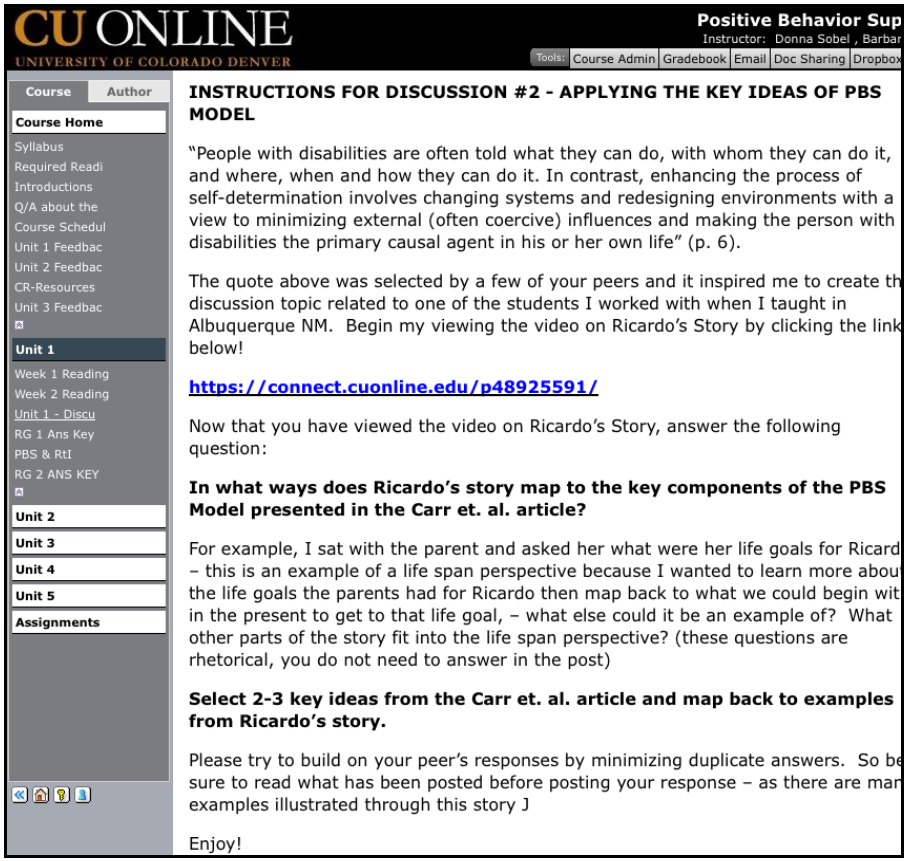
For this type of digital story, I told a story about my experiences of developing an Ecomap with the family of one of my past students. I uploaded photos of the student as well as sample Ecomaps from the text. I also shared my screen and showed them where in the learning management system they could find additional resources related to working with families and the chapter on alternatives to interviewing parents.

The benefit of this approach was to move beyond simply reading about how to complete an Ecomap to actually seeing and hearing how an Ecomap can be used with a real family. Students noted that prior to seeing the digital story—even after reading about the concept—they were confused, but that once they viewed the digital story where I demonstrated how I implemented the Ecomap with a family, they had a more clear understanding and were more likely to try the approach.

Anchoring Application of Key Concepts

I also use digital stories to anchor the application of key concepts for students. For instance, in a course I teach, students read about the core principles of positive behavior supports model—a school wide reform movement to promote positive behavior and increased learning opportunities in schools. Initially this concept was developed to address the behavior of individual students with significant behavior concerns but has since been scaled up as a school wide approach to promoting positive behavior. An otherwise abstract concept until seen in action, I developed a digital story of one of my students, Ricardo, as an anchor for them to identify and apply the core principles of the model. Again, I uploaded photos of the student in a variety of contexts and a PowerPoint presentation on alternative communication devices to provide a visual when talking about the student's educational needs. I narrated the story using the camera and voice pod in Adobe Connect while toggling through photos of Ricardo and

the PowerPoint presentation. After students viewed the digital story, they participated in an online discussion forum to post the connections they made between the digital story of Ricardo and core principles of the positive behavior supports model from the reading (see below). Students really liked being able to apply the core principles to a case study and found that they understood the ideas more deeply as a result. Students also reported that they liked getting to know me better as a teacher and that the video helped to contextualize otherwise abstract concepts.



Conclusion

Creating digital stories in Adobe Connect has assisted me in making more authentic connections not only with the content of the course, but with my students on a personal level. The stories I create incorporate documents (e.g., .pdf, .ppt, and .doc), photos, and screen sharing to view web-based material. I hope my experience can help you think differently about the way you "present" information in your courses and engage students in the material. I have found that Adobe Connect can be a very effective and easy to use tool to create digital stories that engage students in (a) applying key concepts, (b) demonstrating skills, and (c) as a vehicle for getting to know the professor better. Whether you have used storytelling as an instructional tool in your face-to-face courses or not, I encourage you to begin experimenting with telling more

stories about yourself and the content of your course and I can't think of a better way to do this than firing up Adobe Connect and recording a story for your next course.

Additional Resources

University of Houston - Educational uses of digital storytelling
http://digitalstorytelling.coe.uh.edu
A resource for educators interested in integrating digital storytelling into educational activities.

Center for Digital Story Telling
http://www.storycenter.org
An international non-profit organization focused on training, project development, and research committed to helping people tell stories from their lives.

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Bio

Dr. Barbara J. Dray is an assistant professor in special education and teacher education in the school of education and human development at the University of Colorado Denver. Dr. Dray has been teaching online courses for the past several years and recently incorporated digital stories as an instructional tool. She also has been conducting ongoing research in the development of a survey to assess students' readiness for online learning with implications for institutions and faculty in the design and implementation of online learning. This research came out of the development of an online program to fulfill teacher shortages in bilingual special education.

Chapter 13

Critical and Creative Thinking: Embracing Xtranormal

Stephanie (Stevie) Townsend

Our role as teachers includes enhancing the repertoires of literacy and communication practices available to our students (Comber, Nixon, & Reid, 2007). As a result, I often strive to incorporate activities in my courses that are authentic and relevant to my student's lives and/or professions that can help develop their literacy and communication skills. Every fall, I teach a master's level course on children's literature. In this course, I really want my students to respond to literature much like they expect their own students to do in their own courses. I have tried to do this a number of ways over the years. Recently, though, I found a tool called Xtranormal that is enabling me to do this better than ever before. In the following paragraphs, I briefly explain what Xtranormal is, how I use it, and how you might use it in your own classrooms.

What is Xtranormal?

Xtranormal (http://www.xtranormal.com), according to its website, is a "revolutionary, real time, movie making software." In my own words, though, I would describe it as a free Web 2.0 application that enables users to turn text into a movie. So basically if you can type, you can make an Xtranormal movie!

You start by deciding how many actors you want, you then write the script, design the scene, and direct the action. In a matter of minutes, you can convert text into a movie and then share it with the world. And the best part, students seem to love it! For instance, I had one student say, "Wow, my husband wondered where I was because I got so involved in this website. I was intrigued for two hours." Another student created four Xtranormal movies when he was only required to create one. His comment, "It's so cool." So the bottom line is, Xtranormal is engaging, rewarding, and addicting!

How I Use Xtranormal

As neat as Xtranormal is, I wasn't going to use it in my classes if I couldn't find a meaningful way to use it that supported my learning objectives. I use threaded discussions a great deal in my online and hybrid courses for students to discuss certain topics. I like having students respond to the readings in threaded discussions. But over the years I have realized that threaded discussions can get boring and that I need to provide a variety of learning opportunities for my students.

So, rather than setting up a typical threaded discussion to discuss children's literature, one week I asked my graduate students to select a favorite children's book from our reading list and create a book talk using Xtranormal. [A book talk is a brief oral presentation about a book. Teachers and librarians use them to stimulate and motivate children to read and to generate interest in a book (Hillman, 2003).] I did not demonstrate Xtranormal to the class, rather I gave them two weeks to investigate the site and come to class with relevant questions. I then had them post the URLs to their Xtranormal book talks in a threaded discussion and then asked them to view each other's book talks. My students were intrigued by Xtranormal. They repeatedly expressed the entertaining aspect of creating a short movie clip using Xtranormal. There

are several of my favorite Xtranormal clips from the children's literature class in Table 1.

Table 1. Xtranormal Book Talks

	Lizzi Bright and the Buckminster Boy http://www.xtranormal.com/watch/5631103
	Ginger http://www.xtranormal.com/watch/5649815/
	Skippey John Jones http://www.xtranormal.com/watch/5658057/
	Lizzi Bright and the Buckminster Boy http://www.xtranormal.com/watch/5668007

Other Instructional Uses of Xtranormal

Based on my experience and students reactions to Xtranormal, I have considered additional instructional uses of Xtranormal. Since this is a new medium for me, I am just beginning to learn how this site might be used effectively for instructional purposes.

But the following are some ideas I have on how faculty can use Xtranormal for a variety of instructional purposes.

- **Developing one's "Writer Voice":** Xtranormal could be an excellent tool to use to teach writing. As I viewed the clips, I could hear my students' "writing voice." When writing teachers focus on including one's "voice" in writing, this site could help students develop their writing voice.
- **Summarizing Key Concepts:** Another way to use this tool is to have students summarize key concepts in their reading. This would be much more inviting than outlining key concepts from texts and it might encourage students to actually watch the reading summaries of others. Students could include a written text for those learners who need to follow along, but the visual would be a nice change and inviting for audio learners.
- **Group Presentations:** You could put students in a group and have them collaborate and develop a group presentation using Xtranormal.
- **Weekly Introductions:** You could also use this as a way to introduce a week or unit in an online course. I'm sure students would rather watch an Xtranormal movie than read a list of activities that are due for a given week

Conclusion

The bottom line is that Xtranormal is an interesting site that you will definitely want to visit. It may be too intricate for some students and just the right inspiration for others. Giving students choices is vital. The difficulty for some students to access the site was evident. Sometimes when students wanted to post their completed product, the site was down. This caused frustration. Given enough time, though, all of my students were able to create a product that they were proud of. And they were all interested in doing more with Xtranormal. I am certain you will think of additional ways to use Xtranormal in your courses. I cannot wait to play with Xtranormal some more! Enjoy!

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Bio

Stephanie (Stevie) Townsend, PhD, is a clinical professor in the School of Education and Human Development. She teaches in the Literacy, Language and Culturally Responsive Teaching Program and in the Urban Teacher Education Program. She is a site professor at Edison Elementary school in the Denver Public Schools. She loves literacy and her family even more!

Chapter 14

Experimenting with Google Docs for Group Projects

Storm Gloor

Group projects can be a very useful and effective instructional strategy for college courses. Researchers have found that students working in small groups tend to learn and retain information better and are more satisfied with their courses (Davis, 1993). I have found that group projects can also be effective in developing communication skills, offering the ability to delve deeper into a subject, as well in developing group organization skills

However, despite these benefits, faculty often avoid using group projects in their courses because of some common issues associated with group projects. For instance, faculty often struggle with how to fairly assess group projects, as well as motivating students to take full advantage of the benefits of such work. But perhaps the biggest problem faculty face with group projects is push back from students. Students are reluctant to work with or depend on others, especially on graded assignments. This reluctance tends to stem from previous poor experiences they have had with group projects. They may recount stories of non-communicative team members, difficulties in finding times for everyone to meet, overbearing group leaders, insignificant or error-ridden contributions by apathetic teammates, or fellow students who fail to make deadlines or even contribute at all.

I have sensed this trepidation from students in my own courses when I assign group projects. Rather than simply avoid group work, I have tried to search for ways to make group work more satisfying and equitable for my students. Therefore, during the spring of 2009 I began experimenting with using Google Docs with group projects and formally documenting the results. I was interested in better understanding students' perceptions of Google Docs and its effectiveness in group projects. In the following pages, I will briefly report on some results of studying Google Docs and my experience using Google Docs to improve students experiences in group projects.

Google Docs

Google Docs is a free, web-based, program that includes a suite of applications that enable users to create spreadsheets, presentations, or word processing documents. It is essentially a much lighter version of Microsoft Office that utilizes "cloud" technology to store and manage documents online rather than on your computer. But unlike Microsoft Office and other desktop office applications, with Google Docs (because it is web-based) multiple users can access documents, spreadsheets, or presentations as either viewers or editors. In fact, multiple editors can be assigned to a document and they can edit the same document simultaneously in real time. In other words, with Google Docs, a group of students can all be added as editors to the same document, they can then collaborate and create the document together and even track the revisions and contributions of each member of the group through the revision history of the document, presentation, or spreadsheet. Access to documents is password protected, therefore privacy and security of student work is maintained. Online storage of a "master" document also eliminates the need for tracking the latest version of a document and the risk of losing it. Google Docs also eliminates the necessity of having

to coordinate face-to-face meetings. It enables students to easily see each other's contributions to the project. All of these advantages could possibly address major concerns students have with group projects.

I should point out that Google Docs is only one of many applications that can accomplish these goals. For instance, faculty have used wiki's for a number of years in much the same way. I chose to use Google Docs though because it is the most accessible and simplest application to implement. The applications themselves, particularly the word processor, are fairly intuitive, especially for anyone accustomed to Microsoft Word.

Method

Sample and Context

To investigate whether Google Docs (as an online collaboration tool) would affect students' perceptions of the group project experience, I tracked two classes that had group projects. One was required to use Google Docs and the other was not. I was also interested in the practical limitations of the program, particularly its word processor, for academic work.

The first class—which I will refer to as "Class A"—was a course that was being offered for the first time. It was an elective course that included 28 students. Students were separated into seven groups for the group project. The focus of the project was on predicting the future of the music industry. Each group was required to produce a term paper that outlined their prediction based on research they gathered as well as knowledge gained from the course textbook and presentations. Students in this class, Class A, however, were required to produce their group term paper in Google Docs. I created seven "shells" (i.e. blank online word processing documents) in Google Docs, and invited each member of each group as editors of their respective version. Students could only view and access the work from their own group; they could not access the work of other groups. From that point forward each group determined on its own when, if ever, they would meet and how they would organize the project. The assignment was assigned a due date, at which time I went in and changed each student's access from "editor" to "viewer"—thus prohibiting any further changes to their work.

The second class—which I will refer to as Class B—was a course that had been offered as an elective for years. However, a new group project assignment was added to the course to complete this study. There were 20 students enrolled in this course. The students were randomly grouped into four groups. Each group needed to find a local musical artist that they felt should be signed to the student-run record label. As a group, they would prepare a report about the artist, why the artist should be signed, and a detailed plan for how the artist would be marketed, what content would be created, and how the project would be financed. This assignment, like Class A, was assigned a due date. But unlike Class A, each group could turn in their project as a hardcopy, electronic document emailed to me, or as a Google Doc file. It was essentially their choice on how they wanted to turn in their project and the format of the project.

Students in Class A and Class B were both given detailed instructions about their project as well as a copy of the rubric that was going to be used to assess their project. Students in both courses were also given the opportunity at the end of the project to evaluate the performance and contribution of the other students in their group. Those evaluations were factored into one part of their grade for the project. It should be noted that four students were enrolled in both classes.

Even though Class A was required to use Google Docs, students did not receive any instructions and/or training on how to use Google Docs. They were simply required to submit an e-mail address to me so that I could give them access to their groups' blank document. Throughout the semester students were reminded that I could assist them with any questions that they might have about how to use Google Docs. However, not a single student requested such assistance. I also from time to time got online and viewed each groups' progress and updated the rest of the class about which group appeared to have done the most work up to that point, based on the amount of content on their document. This was simply intended to motivate the other teams.

Data Collection and Analysis

A pre and post survey was used to collect data. The surveys were administered online; they were anonymous and completely voluntary. The first survey was administered soon after the group projects were assigned. The purpose of this survey was to understand, among other things, student's initial comfort with online technology, familiarity with Google Docs, and perceptions of group projects. This data established a benchmark for later comparison. A follow up survey was administered at the end of the semester which measured the students' perceptions after completing their group projects. At this point, only preliminary analysis have been done; that is, only basic descriptive statistics have been conducted on the pre and post survey data. Future analysis will likely include statistical analyses of the differences between these two groups.

Results and Discussion

The preliminary results of this study indicate that Class A, the Google Docs class, did experience a *slight* change of opinion regarding group projects (see Table 1).

Table 1. Class A (The Google Doc class) Perceptions of Group Projects

"How effective are group projects as a learning/educational experience?"		
	Pre	Post
Not at all	2	2
Somewhat	11	6
Generally	10	15
Very	3	4
Extremely	0	0
Total	26	27

The biggest change took place in the group of students who felt that group projects were generally effective. In the pre survey, 10 students reported that they believed that group projects are generally effective. That number jumped to 15 students in the post survey. But the ends of the spectrum stayed the same across the pre and the post survey with only two students reporting that they didn't think group work was effective at all and no students reporting that they felt group work was extremely effective.

In Class B (where Google Docs was not required), when asked the same question, there was also an apparent change from the pre vs. the post survey. But unlike with Class A in which about 20% of students started to think more highly of group projects, three students out of eighteen in Class B began to think less highly of group projects by the end of the semester. For instance, the number of students who thought group

projects were "very effective" as a learning experience reduced from 8 on the pre survey to 5 on the post survey. But like Class A, the ends of the spectrum did not change.

Table 2. Class B (the non-Google Doc Group) Perceptions of Group Projects

"How effective are group projects as a learning/educational experience?"		
	Pre	Post
Not at all	0	0
Somewhat	4	4
Generally	5	9
Very	8	5
Extremely	0	0
Total	17	18

In both courses, there was somewhat of a shift in opinion regarding the effectiveness of group projects. However, when asked to compare group projects to individual projects, in both courses opinions did not appear to change that much between the pre and post survey (see Table 3). In Class A, a couple of students appear to view group projects slightly more favorable than when they began the course but most students in Class A stayed the same. Similarly, in Class B, by the end of the semester, two students rated that they enjoyed group projects much more than individual projects.

Table 3. Preference of Group vs. Individual Projects

"How much do you prefer group projects versus individual projects?"				
	Class A		Class B	
I prefer…	Pre	Post	Pre	Post
Individual projects much more	10	8	1	0
Individual projects slightly more	10	11	6	5
An equal mix of both	5	6	10	10
Group projects slightly more	1	2	1	1
Group projects much more	1	1	0	2
Total	27	28	18	18

When asked in more direct terms, once their respective projects were complete, whether their opinions had changed regarding group projects, only seven percent of the respondents in Class A liked them "much more" while 60% of the students in Class A and 71% of the students in Class B felt the same about group projects at the end of the semester.

Table 4. Changes in feelings about Group Projects

"When comparing your current feelings about group projects to how you felt about them at the beginning of the semester, which one of these statements would most apply?"		
I like them…	Class A	Class B
Much less	7%	6%
Somewhat less	11%	6%
I feel the same	60%	71%
Somewhat more	15%	17%
Much more	7%	0%
Total	100%	100%

The preliminary results suggest that the use of Google Docs does seem to have a very small affect on students' perceptions of group projects. And when asked if I should continue requiring Google Docs for the same project in the future, 24 of the 28 students in Class A indicated "yes," while only four responded "no." Those who selected "yes" were asked why they felt that way. Among the responses were comments such as "It creates a de-centralized meeting place", "it's very effective and teaches students about new media", "It's easy to use and no one can 'lose' it", and "it is a good way to see what your peers have done."

Keep in mind that students responded this positively to Google Docs without any specific instructions on how to use the program. In fall of 2009, I continued to require the use of Google Docs for group projects. But this time I conducted a 30-minute presentation of the basic elements, uses, and benefits of the program. Of the 21 students surveyed at the end of the semester, 19 recommended that the next class utilize Google Docs for their projects.

Benefits of Google Docs from a Faculty Perspective

I have illustrated how two different groups of my students have enjoyed using Google Docs. But using Google Docs has also made my job easier. For example, there were no issues as to whether or not a project was turned in on time, nor were there any stories of lost copies due to hard drive crashes or an error by a teammate. I could monitor progress, or lack thereof, on the project without having to ask or survey students. I also had the opportunity to recognize early on if a group is having problems with the project. It was also possible to objectively observe to at least some degree the contributions to the group project that each individual member made by reviewing the revision history. [note: The revision history has some limitations; for example, a student could prepare their work in a separate document and simply copy-and-paste it to the project document once they've written up their entire contribution. But appear like they have only accessed the document once. Because of issues like these, one group even required each member of the team to color-code their work so that I could more easily and accurately ascertain their individual contribution.] Another benefit of Google Docs is that it enabled me the ability to provide feedback or answer questions along the way by commenting on the document itself.

Drawbacks of Google Docs

Functionally, the Google Docs word processor has its disadvantages in terms of producing an online version of the traditional term paper, whether it's collaboratively written or not. This likely frustrated some students. As one student put it, "Google Docs is NOT Word," comparing it to the most popular software for producing reports. For one thing, the ability to automatically footnote was not available. Students simply manually identified references. But since there are no separate "pages", per se, in a Google Doc, the only option was to use makeshift endnotes, or to use the program's footnoting option, which simply places an index tab to the far right of the document wherever footnotes are included. Specific reference information can be added to a text box in the tab. But Google Docs is regularly updated and these features are likely to change over time.

Typing into Google Docs can be quite unwieldy as well, a sentiment brought up by several students in the study. Edits, particularly those involving font and color adjustments, undo themselves for no apparent reason sometimes. Word documents uploaded to the program or Google documents downloaded into Word do not always

convert and maintain their formatting as well as you would expect (especially if a document has a lot of complex formatting).

Conclusion and Implications

But for the purposes of collaborating to create a written document, students involved in this study were comfortable using Google Docs. Though its use didn't seem to markedly change their perception of group projects in general, perhaps the practical advantages carried the day. Not having to meet in person, no worries about who's holding the "master" copy, and simply not having to worry about actually submitting on time the finished product were among the reasons students favored the use of the program.

Despite its drawbacks, I've learned from my initial research that Google Docs definitely has its practical advantages for collaborative work, even though its use doesn't fully influence student perspectives on group projects. Considering the mission of preparing students for careers, however, might be as good a reason as any to utilize the program for such assignments. Tools like Google Docs will likely be a part of the workplace in which students eventually find themselves. As one student put it, "this is the future, we might as well start learning about it now."

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Bio

Storm Gloor is an Assistant Professor in the College of Arts and Media at the University of Colorado-Denver, where he serves as Area Head of the Music Business program. Along with teaching various music business courses, Gloor oversees the college's award-winning record label, CAM Records. He's also developed the Music and Entertainment Marketing and Music and Entertainment in the Digital Age courses at the college. He holds an MBA degree from West Texas A&M University. Prior to academia, Professor Gloor spent many years in the retailing of recorded products industry.

Chapter 15

Horton Hears a Tweet[1]

Joanna C. Dunlap
&
Patrick R. Lowenthal

"We've GOT to make noises in greater amounts!
So, open your mouth, lad! For every voice counts!"
— From Dr. Seuss, Horton Hears a Who

Not long ago, we participated in EDUCAUSE 2009 in Denver. Because we were delivering a presentation on instructional uses of Twitter (Dunlap & Lowenthal, 2009), our ears and eyes were wide open for other presentations mentioning social networking in general and Twitter specifically. And did we get an ear and eye-full! It seemed like everyone was talking about Twitter — mostly positively, with a few pointed criticisms of the perceived obsession people have with the tool. At a lively "debate" ("debate" because ultimately both debaters were fairly pro-Twitter), the negative commentary focused on three things: Twitter takes too much time, the content is of questionable value, and it promotes social (or, anti-social) myopic-ness. We do not disagree, but instead have found, as many have (Haskvitaz, n.d.; Messner, 2009; National Education Association, 2009; Walker, 2009), that Twitter's potential as a powerful instructional tool outweighs these negative factors. In this article we share some of the insights gained using Twitter as an instructional tool and explain why we think Twitter, despite its drawbacks (and really the drawbacks of social networking in general), can add value to online and face-to-face university courses.

The Challenge of Student Engagement

Our path to Twitter as an instructional tool was pretty straightforward. We teach online university-level courses in the field of instructional design and technology and constantly look for ways to enhance students' experience in the online-education setting. We are concerned with student engagement, including how to overcome the transactional distance that exists in online courses (Moore, 1993). Our students are nontraditional: working professionals typically either in K–12 education, higher education, or corporate training spaces, or changing careers. They reside all over the world and have full personal and professional lives. Conditions around them are rife with distractions, making student engagement even more challenging — and even more elusive — than in conventional instructional settings with a traditional student population.

Although there are many definitions of student engagement, we see it as the time and energy students devote to educationally purposeful activities and the extent to which the university encourages students to participate in activities that lead to their

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academic success (Kuh, 2003). Engaged students are more likely to take initiative, exert effort, and persevere during learning activities. In addition, when students are engaged in learning, there is increased potential that they will be interested, curious, optimistic, and enthusiastic (Skinner & Belmont, 1993)—all positive attributes of a healthy, productive learning environment.

Arthur Chickering and Zelda Gamson (1987) provided a framework for student engagement based on 50 years of research on educational effectiveness. Their framework includes a list of seven "good practice" principles that have guided student-engagement practice and research for the last 20-plus years:

1. Encourage student-faculty contact
2. Encourage cooperation among students
3. Encourage active learning
4. Give prompt feedback
5. Emphasize time on task
6. Communicate high expectations
7. Respect diverse talents and ways of learning

This framework is, in part, the foundation of a well-established tool for systematically measuring student engagement: the National Survey of Student Engagement (NSSE). The NSSE survey measures educational effectiveness based on five benchmarks of student engagement (Kuh, 2001):

- Academic challenge
- Student interactions with faculty
- Active and collaborative learning
- Enriching educational experiences
- Supportive campus environment

For nontraditional students like ours, the most influential academic experiences are those tied to course-related learning and their relationships with faculty and other students (Donaldson & Graham, 1999). This holds true for nontraditional students in online programs as well. In 1996, Chickering and Stephen Erhmann applied the original Chickering and Gamson framework to online education. They believed that, if the power and affordances of online education (and the technologies and tools used to deliver online learning opportunities) were to be realized, online educators had to adhere to the original good-practice principles (Chickering & Erhmann, 1996). Still, at the top of their list (as well as prominently featured as an NSSE benchmark), is the idea that good practice encourages contact between students and faculty. Implied by Chickering and Erhmann's thesis is that knowing one's instructors well has a positive impact on learning, which may in turn help with retention and successfully accomplishing the goals of the course and program (Bender, 2003). Encouraging student-faculty contact and interaction thus gets at the heart of student engagement in online-education settings.

In online education, social presence is directly related to faculty-student and student-student contact and interaction, as well as the development of a culture of caring and trust needed for an effective online learning community (Lowenthal, 2009a, 2009b). Specifically, *social presence* refers to the sense of another person as being "there" and being "real" (Short, Williams, & Christie, 1976). It is "the ability of participants in a community of inquiry [a community of learners] to project themselves socially and emotionally, as 'real' people (i.e., their full personality), through the medium of communication being used" (Garrison, Anderson, & Archer, 1999). If social presence in an online course is strong, then students recognize their course colleagues and

instructor as being there and being real. Often, online students' and faculty's sense of social presence is negatively affected by their transactional distance: the space and/or time separation between students and faculty that creates a psychological and communication space where potential misunderstanding can thrive (Moore, 1993). This is further exacerbated by the typical reliance on asynchronous, written communication, such as that delivered via threaded discussion forums in learning management systems (LMSs). Asynchronous, written communication lacks the immediacy needed to reduce personal risk and increase acceptance, which are important objectives when trying to establish a supportive and secure learning environment (Garrison & Anderson, 2003). Without a high level of social presence, students can feel isolated and disengaged because of a lack of communication intimacy and immediacy (Anderson, 2008; Aragon, 2003; Gunawardena, 1995; Lombard & Ditton, 1997).

Web 2.0 tools have been a godsend in supporting our student-engagement efforts to achieve enhanced social presence in our online courses (see Dunlap & Lowenthal, 2010; Lowenthal & Dunlap, 2010). We were looking for a more intimate and immediate form of communication, striving to involve students to such an extent in the joy of learning with us and with each other that they would become immersed in the online learning experience (Bender, 2003; Vella, 1997). Because of our years teaching within an LMS, we realized that we could not achieve a natural communication flow with students only using the tedious, multi-step process required. The typical LMS requires logging in, getting into the specific course's shell, entering the specific discussion forum, posting a question ... and then staying connected to the LMS while waiting for someone to respond — or giving up and moving on to other work, thoughts and issues. (See Figure 1.) We wanted a tool that would enable us to establish an ongoing sense of being present at the current moment and able to receive and respond to students immediately, forming a real-time online dialogue and forum for sharing (Finkelstein, 2006). By enabling us to connect and work with our students outside of the LMS, Web 2.0 tools — specifically social-networking tools — allow us to establish natural, free-flowing, just-in-time contact with students, and them with us. (See Figure 2.) The Web 2.0 tool that has helped us achieve this objective more than any other is Twitter. (See Figure 3.)

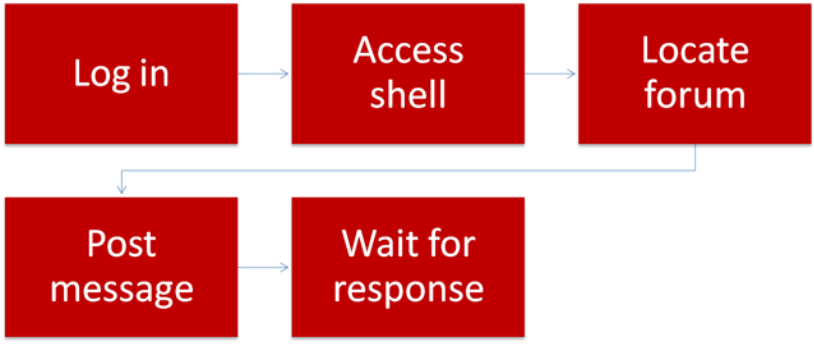

Figure 1. LMS-Driven Communication with Online Students

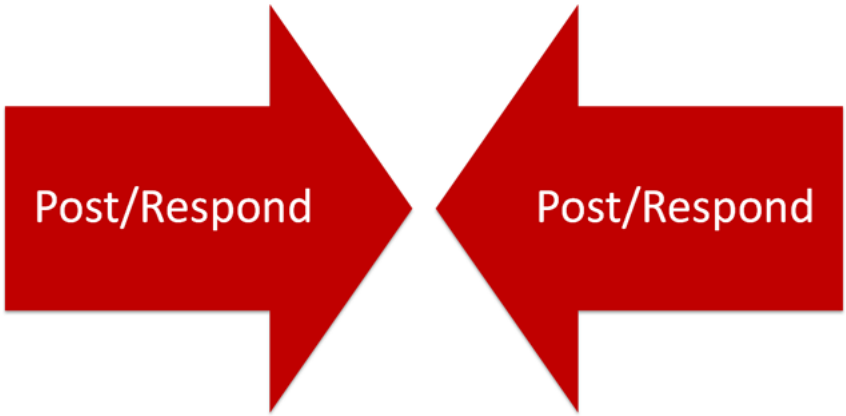

Figure 2. Desired Pathway of Communication with Online Students

Figure 3. Twitter and Desired Communication with Online Students

What Is So Special About Twitter?

Learning takes place in a social context. Higher cognitive processes originate from social interactions (Vygotsky, 1978), with knowledge acquisition "firmly embedded in the social and emotional context in which learning takes place" (Lebow, 1993). Conversation, collaboration, and establishing a community of learners is critical to the teaching and learning process (Pask, 1975). Because of their fundamental reliance on social participation and contribution, Web 2.0 tools, specifically social-networking tools, have great potential for enhancing the social context in support of learning, especially in online-education settings (Dunlap & Lowenthal, 2011).

For those new to Twitter, this service is a freely accessible, multiplatform, Web 2.0 tool — part social networking and part microblogging tool (for more on Twitter see Educause learning Initiative, 2007, and Stevens, 2008). Twitter's website describes Twitter as "a service for friends, family, and co-workers to communicate and stay connected through the exchange of quick, frequent answers to one simple question: What are you doing?" (Note, Twitter recently changed the question to "What's

happening?") A video created by our colleagues at CU Online quickly describes what Twitter is and how people use it.

Currently, Twitter reports more than 18 million participants, while Facebook has 350 million, MySpace has 125 million, Friendster has 110 million, and LinkedIn has 50 million. What, then, is so special about Twitter? Although small by comparison, Twitter has unique qualities that make it a good fit for online education. For example, people use Twitter for much more than updating their current status. In 140 characters or less, people share ideas and resources, ask and answer questions, and collaborate on problems of practice. Depending on whom you choose to follow (that is, communicate with) and who chooses to follow you, Twitter can be used effectively for professional and social networking because it can connect people with like interests (Boss, 2009). Educators, specifically, are using Twitter to establish and develop personal learning networks (Messner, 2009). According to Messner, "A PLN, or Personal Learning Network, is a group of like-minded professionals with whom you can exchange ideas, advice, and resources" (Messner, 2009).

Social media researchers like to differentiate between friendship-driven and interest-driven types of participation in social media and social-networking sites (Ito et al., 2009). This differentiation, in part, is due to structure and functionality. Twitter is a less bounded, more open networking tool that allows asymmetric relationships. Facebook is a more bounded community, requiring symmetric relationships (Chen, 2009; Porter, 2009). In Facebook, if you "friend" someone, they have to friend you back, with the only other option being to not have any connection at all. In Twitter you can follow someone who does not follow you; someone can follow you that you do not follow in return; you can follow someone who also follows you; or you can choose not to have or allow a connection between you and others.

There is no question that Twitter and Facebook attract both types of participation and have a number of similar qualities. As one of our students commented:

> *"Twitter has been a great way for me to check in with everyone who is using it. I found out how others were feeling about school, how life was treating them, how their jobs and families were doing. This is something much more intimate than mandatory weekly discussions..."*

We have found, though, that Twitter attracts more interest-driven participation (at least in our field of instructional design and technology) compared to Facebook, which continues to be used more often for friendship-driven types of participation. Our students seem far more likely to use Facebook for personal networking with family and friends, and they prefer to keep their academic and professional networking separate from their personal. When using Twitter for instructional purposes, therefore, we are less likely to intrude on students' personal networking space (Boyd, 2009a).

The main reason we selected Twitter over other social-networking options, however, is because of its rapid-response attribute, which allows people to receive immediate, instantaneous responses. As described by Steve Thornton:

> *[Twitter] seems to live somewhere between the worlds of email, instant messaging and blogging. Twitter encourages constant "linking out" to anywhere and, in that respect, is more analogous to a pure search engine; another way to find people and content all over the Net* (Thronton, 2009).

This benefit is further extended by additional features:

- Users do not have to log in to Twitter to receive updates if using an RSS feed.
- Twitter provides an interactive, extensible messaging platform with open APIs.
- The read page is the same as the write page, which allows for a more seamless exchange.
- A number of other applications are available to make Twitter more useful, such as Twirl, TweetDeck, Twitterific, and Digsby.

Because of these features, Twitter was a viable option for us to establish free-flowing, just-in-time communication with our online students.

Recent reports suggest that only about five percent of faculty use microblogging as a part of instruction (Nagel, 2009) and that the majority of faculty do not use Twitter at all (Beja, 2009). Perhaps faculty resist using Twitter for instructional purposes because of the very concerns expressed during the EDUCAUSE Twitter debate. However, we have found a way of using Twitter with our students that minimizes these concerns, while supporting faculty-student connection and benefiting other instructional objectives.

Our Instructional Use of Twitter

We initially explored Twitter as an instructional tool to provide an informal, just-in-time way for our students to connect with each other and with us throughout the day. We invited students to participate in Twitter with us, explaining our goals (student-faculty connection and enhanced student engagement). We did not require their participation because we recognized that they might already be involved in social-networking activities and not want to take on more, or because of their concerns about privacy and their online footprints.

Guidelines for Instructional Use

- Establish relevance for students
- Recommend people for students to follow
- Model effective Twitter use
- Encourage students' active and ongoing participation

- Build Twitter-derived results into assessments
- Continue to actively participate in Twitter

With Twitter, as with all social-networking tools, the value of the experience hinges on three things: (1) who you are connected to and with; (2) how frequently you participate; and (3) how conscientious you are about contributing value to the community. Therefore, to establish relevance and to make sure students got off to a good start, we took the following steps:

- *We provided students with a list of professionals who are active, relevant contributors (in addition to our Twitter IDs and the IDs of other students in the course).*

This narrows the network to those who can immediately contribute to students' learning and professional development and addresses colleagues' concern about time spent. People who are new to Twitter often express uncertainty about how to find the right people to follow. While users can search Twitter posts for like-minded people, there are no guarantees. The majority of Twitter accounts are abandoned during the first month (Cashmore, 2009), probably due in part to users' inability to find the "right" people to follow — that is, people who can contribute to their learning and professional development. By providing students with a list of people (who we personally have benefited from following), we hope to help them get off to a good start with Twitter. In our field of study, for example, we recommend following Garr Reynolds, Nancy Duarte, Scott McCloud, Will Richardson, George Siemens, and David Warlick, to name a few. We also suggest following relevant professional organizations (*EDUCAUSE*, *Sloan-C*), publications (*Chronicle of Higher Education*, *Education Week*, *EDUCAUSE Review*, *Wired*), and companies (Apple, VoiceThread, SlideShare, Inspiration).

- *We shared examples of professionally appropriate ways to engage in and with the Twitter community.*

People criticize Twitter (and social networking in general) because they believe that it promotes social (or anti-social) myopic-ness. While we have seen many examples of this, we believe that there is nothing inherent in the technology that causes it. In fact, we find that through sharing and modeling what we believe to be appropriate ways to use and engage in the Twitter community, we can help our students avoid a myopic perspective.

- *We encouraged students to share their knowledge, work, and discovered resources (blog posts, YouTube videos, Web 2.0 tools, etc.) with the Twitter community.*

While we believe there is some value to the social chitchat that happens on Twitter — especially when trying to get to know others and establish one's social presence — we have found that much of the value people, especially educators, get out of Twitter is derived from the knowledge and resource sharing (see also Hilbert, 2009). We strive to get our students to not only consume but also to produce and contribute knowledge and resources to the larger community. We believe that through mixing social chitchat and resource sharing, our students and the Twitter community as a whole can establish

value and relevance, addressing concerns shared by some colleagues about the value of Twitter.

- *We allowed students to cite tweets in their course projects and papers (as an electronic source of information).*

For us, tweets, while brief, are a valuable source of information. Therefore, students should be able to cite tweets in course projects and papers. Twitter supports students' ability to do this because each tweet has a unique and stable URL. (See Figure 4.) Therefore, we direct students to cite tweets as recommended by APA style. However, we recognize and strive to communicate to students that they should always support the claims they make by citing multiple and different types of resources, not relying only on the information they attain via social networking.

Figure 4. Example of Tweet with Corresponding URL

- *We frequently contributed our own status updates, ideas, resources, and so on.*

Finally, we believe it is imperative to contribute frequently to the Twitter community. By doing this we demonstrate to students that developing and maintaining a PLN is not simply an academic exercise but rather a lifelong learning skill (Dunlap & Lowenthal, 2011). There is no question that active and frequent participation in the Twitter community takes time, as concerned colleagues have voiced. However, we believe that if Twitter participation is initiated by a learning need and subsequently driven by learning goals and objectives, then the activity is relevant and purposeful, and Twitter time is time well spent.

As one or our students commented after using Twitter for a course:

> *"I enjoyed twittering. It was fun to have a small group to get started with. If we hadn't started as a class I probably wouldn't have picked it up on my own. But, it is a fun way to connect. You are accessible via email and in the shell, but Twitter increases feelings of connectedness."*

Like other social-networking tools, Twitter is affected by what Joshua Porter (an active blogger on the topic of social web design) refers to as the "opaque value" problem (Porter, 2007). Because social-networking tools are forums for personalized, socially focused conversations, the communities that spring from these tools are person/people-centered. As Porter explained, this person/people-centeredness results in the value of participation being opaque for anyone who is not participating. To address this problem, we made sure that students who chose not to participate (because the value of participation is opaque for them) had access to our tweets by incorporating an RSS feed–like Twitter widget in our LMS. (See Figure 5.) Many widgets like these can be found online, although we should note that this particular widget has limitations. As seen in the example in Figure 5, the widget only displays Joni's posts, not the back-and-forth exchanges between her and members of her network. Students might incorrectly assume that the interaction is one-sided and less than dynamic. Besides keeping students apprised of the resources we shared via Twitter, however, this widget allowed them to vicariously discover Twitter's value. Some students later chose to join us in Twitter because they had a better understanding of what they were getting into because its value was less opaque. Ultimately, we found that Twitter helped us achieve our student-engagement objective, but we also quickly discovered that students' Twitter participation led to other notable instructional outcomes.

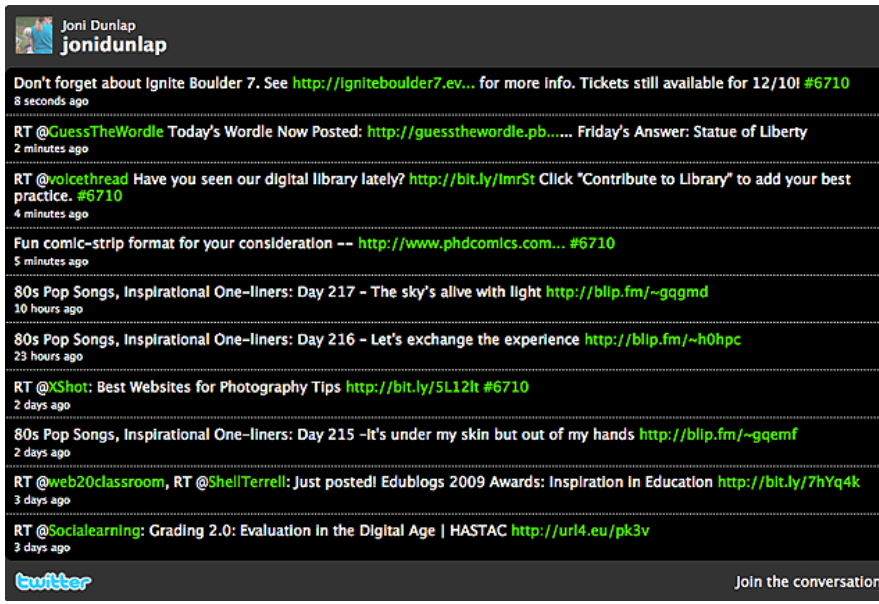

Figure 5. Twitter Feed

Engaging with Professionals

Twitter engages students in a professional community of practice (CoP) (Lave & Wenger, 1991; Wenger, 1998), connecting them to practitioners, experts, and colleagues. This helps enculturate them into the community (Dunlap & Lowenthal, 2009), which becomes especially important for students in professional-preparation programs. Acting as practitioners and using the tools practitioners use to address authentic problems of the domain exposes students to the culture of expert practice (Brown, Collins, & Duguid, 1989; Collins, Brown, & Holum, 1991; Wenger, 1998). Through their

participation in Twitter, students can engage in learning as a function of the activity, context, and culture of the CoP for their field.

Besides the networking potential as students build PLNs, they can receive immediate feedback to questions and ideas from practicing professionals in Twitter, which enhances their learning and enculturation into their professional CoP. Examples of the types of interactions our students had with professionals via Twitter include:

- A student had a question about a chapter she was reading on multimodal learning. She immediately tweeted her question and received three responses within 10 minutes — two responses from classmates, and one from her professor. This led to several subsequent posts, including comments from two practicing professionals.
- A student working on his final project was trying to embed music into a presentation. He was having trouble getting it to work, so he tweeted his question and received a response from his professor and a practicing professional. Both pointed the student to different resources that provided directions on how to embed music and examples that he could deconstruct. Within a half hour, the student had embedded music in his presentation.
- As part of a research project on emerging trends in e-learning professional preparation, a student posed the following question to the Twitter community: "With all of the Web 2.0 tools available today, do e-learning professionals still need to be able to program in HTML and XML?" She received responses from several e-learning professionals, some with links to helpful resources and contacts that could help her with her research.

Our thinking about Twitter as an approach to engaging students in the professional CoP has been influenced by Jean Lave and Etienne Wenger's work in situated learning (Lave & Wenger, 1991). Our particular use of Twitter, we believe, offers opportunities for students to gradually acquire the characteristics and norms of a CoP. Their legitimate peripherality allows them to absorb and be absorbed in the culture of practice, making it — as shared and illustrated in Twitter — their own.

Professional Exposure

When students connect with the professional CoP, it is a great way for them to share and get feedback on their ideas, work, and products and thus establish themselves as contributing members of the community. Using Twitter, our students networked with the authors of the texts they read in their courses, as well as with potential future colleagues and employers. By participating in Twitter within the supportive structure of a course, students learn how to guide and direct their online footprint in ways that highlight and showcase their professional qualities and value. The following example demonstrates how our students used Twitter for appropriate professional exposure:

> *Students used Twitter to promote new blog entries. For example, one student tweeted that he had a new post on his blog about how vision trumps all other senses during instruction. His classmates and professors, as well as practicing professionals, read his blog post because of his Twitter promotion. Subsequently, he received several tweets from the professional community thanking him for sharing his ideas.*

Writing Concisely and Appropriately

Although Twitter elicits open sharing and an informal writing style, it is nevertheless critical to know your audience and share accordingly. A tweet's limit of 140

characters encouraged students to write clearly and concisely. Participating in Twitter helped them learn to be sensitive to their audience and to make professional decisions about what they should share publicly and what they should keep private.

Timely and Ongoing Connections

Our students used Twitter for time-sensitive matters: to ask us for clarification on content or assignment requirements, notify us of personal emergencies, and alert us to issues that needed our attention and action. This really helped them feel the level of connection needed to support their perception of engagement. We have also found that Twitter allows us to maintain ongoing professional relationships with students and alumni.

Positive Results

We believe that our focused use of Twitter has led to positive results in terms of:

- Enhanced social presence
- Student engagement
- Professional preparation

The student comments throughout this article support our conclusion, as do those from a high-school project using Twitter in the classroom sponsored by the University of Minnesota and an experiment with classroom use of Twitter at the University of Texas at Dallas. As one of our students commented:

> *"I really LOVE twittering with everyone. It really made me feel like we knew each other more and were actually in class together."*

We plan to continue our use of Twitter, as well as other social-networking and Web 2.0 tools, to extend the power and affordances of the LMS to create the best possible learning experience we can for them and for ourselves.

Benefits for On-Campus Courses and In-Person Setting

Although our focus has been on using Twitter in online courses, it can also be effectively used in on-campus courses and in-person settings. Two strategies that work well are back-channeling and polling.

Back-channeling

One benefit of using Twitter in on-campus courses is tapping into the back channel of communication. *Back-channeling* is a term linguists use to refer to the feedback listeners share — without interrupting the speaker — related to their developing understanding and appreciation of what is being said, which is then monitored by the speaker (White, 1997). Long before Twitter, John Seely Brown spoke in a keynote talk about the power of leveraging the back channel for instructional purposes. As it turns out, Twitter is an effective way to create a back-channel forum during a lecture or presentation: all users need is a Twitter account and ideally a projector to project the Twitter stream for the audience and speaker to monitor.

On the negative side, back-channeling can be counterproductive — sometimes even hostile and unprofessional — if appropriate rules of professional engagement are not defined and followed. In some instances people have used Twitter to "tweckle" speakers. To *tweckle* is to "abuse a speaker only to Twitter followers in the audience

while he/she is speaking" (see Parry, 2009b).[2] Recent reports in the *Chronicle of Higher Education* (see Parry, 2009a, 2009b) suggest that if you have not heard of tweckling yet, it's only a matter of time.

Danah Boyd, a Social Media Researcher for Microsoft, was one of the most recent and high-profile victims of tweckling at a major conference (see Boyd, 2009b, 2009c; Parry, 2009a). Boyd shared her experience and pointed out problems with tweckling in general but specifically in broadcasting the back channel during a talk: it can distract those who actually do not want to participate in the back channel and enable tweeters to take over a talk via the Twitter stream, thus making the back channel the front channel (Boyd, 2009b). Experiences like Boyd's have led some conferences to publish "social-media 'courtesy' guidelines (Parry, 2009a) and others to restrict its use.

Before introducing back-channeling into your classroom, therefore, it is important to establish its relevance in support of student engagement and learning, set clear guidelines (the twitiquette), model appropriate back-channeling etiquette, and revisit back-channeling's effectiveness throughout the semester.

Polling

Twitter can also be used the way clickers are used for polling in the classroom. A number of different Twitter polling tools are available, such as twtpoll, Poll Everywhere, and StrawPoll. Some, like Poll Everywhere, even enable students to vote on the web or with text messaging.

Polling can enhance student engagement during a class as well as provide information regarding the students' conceptual understanding. One approach to using Twitter as a polling tool is to engage students in think-pair-share activities during lectures and presentations. Faculty pose a question to students, students think about their responses, and then students tweet their answers. Next, students confer with one to two partners sitting close by, and then retweet answers. This approach fosters student engagement by providing a clear structure for students to reflect, discuss, and self-assess.

Conclusion

Social-networking tools offer us unprecedented ways to connect, share, participate, and contribute in a variety of activities. Although we have focused on Twitter, it certainly is not the only social-networking tool that can be used to effectively pursue instructional objectives. Our colleagues in music performance, for example, prefer MySpace because students can easily share their music; our business school colleagues like LinkedIn; and our colleagues coordinating school and university library programs prefer Facebook and Ning because online professional CoPs exist in these environments. One size does not fit all, so we are lucky there are so many social-networking options.

Social networking, including the use of Twitter, has its drawbacks. It is public, you get what you put in, and it takes a lot of time. Of these drawbacks, the time commitment is perhaps the most important. We highly recommend trying Twitter first

[2] Others have wondered if students — that is, not just conference goers — would also fall into this practice of heckling; for example, in a Twitter post (Juvinall, 2009) Pete Juvinall "#edtwitter #educause09 wonders about the dynamic of having student chatter displayed on a screen...and if there are hecklers that result."

to see if you get any personal/professional value out of it before integrating it into the classroom. Twitter is not for everyone, and different faculty from different disciplines might have very different experiences using it for instructional purposes.

We selected Twitter because it:

- Allows for the just-in-time, free-flowing connection between and among students and faculty needed to support student engagement, especially in online-education settings
- Helps students build relevant PLNs that support their learning and professional development while enculturating them into the professional CoP
- Encourages students to reflect on what they share publicly and how to use Web 2.0 tools like Twitter to establish a professionally appropriate footprint
- Allows us to continue our connections with students long after our courses end

We are embarking on our own research into how effective Twitter and other social-networking and Web 2.0 tools are in helping us achieve the instructional goals of enhanced social presence, student engagement, professional preparation, and student learning. Because the use of social-networking tools like Twitter for instructional purposes is still emerging, there are many opportunities for research. As others have before us (Ehrmann, 1995; Worley, 2000), we encourage researchers to examine the relationship between faculty and students and the learning strategies employed, rather than just the impact of the technology in isolation. To this end, in our own inquiry we are examining the following questions:

- Are students' perceptions of their level of engagement in a graduate-level online course enhanced by the use of Twitter as a vehicle for increasing the level of contact and interaction between them and their instructor?
- Does the use of Twitter enhance social presence in a graduate-level online course by providing a mechanism for just-in-time social interactions?

We are encouraged by the comment of one student who used Twitter in a course:

> *"Twitter was a big part of my connected-ness, with my PLN, course colleagues and with you. Even though I didn't post a lot of tweets, I watched the Twitter dialogue. It made the connections stronger and helped me learn more about folks in the profession, the course, and you. And, Twitter led me to some great resources and people for my PLN. Thanks, Joni, for being such a responsive Twitter-er."*

We embrace social-networking tools like Twitter because they allow everyone who wants to participate in an online professional CoP to do so. In social-networking communities, all voices are welcome if they serve to advance the community's understanding of the world. To this end, we invite you to share your thoughts with us. Let us know what you think about using social-networking tools like Twitter to support student engagement and learning by completing the following poll: http://twtpoll.com/7jwv08.

Using Twitter, we can extend our conversation of the use of social-networking and Web 2.0 tools to support student engagement and learning. After all, Twitter and other social-networking tools allow us all to make noises in greater amounts and recognize that every voice counts. So, as Twitter demonstrates every moment of every

day, a contribution is a contribution — no matter how small.

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Bios

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Chapter 16

Driving Student Engagement and Focus in an Accelerated Biology Class using Blogs

Tod Duncan

In the March of 2009, I attended a teaching in biology workshop where I had the pleasure of hearing Gardner Campbell talk about the value and virtue of blogging in the classroom. To be honest, I was initially not sold on the idea of blogs and wikis, and like a majority of those around me, I was reluctant to say the least. About two-thirds of the way through his workshop, the epiphany struck me. I had to surrender control of class events to my students if this was going to work. For most educators, and I believe science educators in particular, this idea of surrendering control isn't simply "thinking outside of the box" but rather "outside of one's mind."

A few months later, I had the opportunity to teach a Maymester course at the University of Colorado Denver (UCD). Maymester is an accelerated three-week term in between Spring and Summer semester where students can complete an entire 3 credit course in just three weeks. This was my first encounter with teaching in an accelerated format. Being new to accelerated courses and the Maymester format in particular, I spent a considerable amount of time adjusting class content, considering new pedagogical tools, evaluating and designing new assessments, and redesigning my Biology of Cancer class from back to front to ensure students completing it in three weeks would be able to learn the same as students completing it in 15 weeks. One thing that concerned me the most was that students would not have the time to digest the major principles, discuss those principles with their classmates (this normally happens right?), and integrate their current knowledge with the new principles they were learning in class. I felt that unless there were opportunities to engage students with the class material right away, that their learning would not be long lived.

I began searching for a tool that my students would value, that would engage them outside of the classroom, and that would allow them to integrate their own life experiences and background into their learning experience. Moreover, I wanted a tool that would allow students to develop writing skills in a low risk environment that would make them accountable for their words and thoughts. Additionally, I wanted to help students better understand their digital footprint and how that footprint tells the world something about them, their values, their skills, and their morality. To me, I didn't want much, but to others I wanted the world! From what I had heard from Gardner Campbell, I decided that perhaps a class blog would meet my learning goals. In the following chapter, I explain how I used a class blog in my accelerated course to meet many of these previously mentioned goals.

Creating the Blog Environment

There are a number of blogging tools available. I decided to use Wordpress to create a class blog. The class blog is an open forum and can be viewed at: http://biol4634.wordpress.com. It took me approximately five hours to work out how to use Wordpress, to set up my blog, and to integrate some more advanced features such as RSS feeds from the American Cancer Society's website and my own Twitter stream. I paid a modest sum to upgrade the server space so that there were no problems

with students uploading files and videos to the blog. But from start to finish it took just an afternoon to setup.

Gaining Student Investment

One of my greatest fears (technical issues aside) was getting student buy-in to engage in something they had probably neither experienced before, nor seen the value of before. I am increasingly experiencing the phenomenon whereby educators leave the exercises and learning opportunities that they supposedly value (e.g., students collaborating on projects together), to out-of-class time where there is no instructor investment or guidance. I believe that the single best way to show a student that I value a skill or idea is to use class time on that skill or idea.

Knowing that blogging would quite possibly be overwhelming (in the light of other technologies I use and the compressed Maymester format), I dedicated a chunk of time discussing the blog at the beginning of the term. During this time, I addressed everything from showing students how to enroll in the blog as authors, to setting their expectations around what they could expect to get out of the blog, to discussing how they will be assessed, to explaining how they should deal with any problems that arise. In addition, I created a FAQ sheet that provided students with step-by-step instructions on how to become an author on the blog, what to do if they could not complete their blog entry in a timely fashion, and how to handle various technical issues that might arise. With this resource and the time I had allocated in class to get signed up, there were no problems with getting students added to the blog as authors. Although initially there were reservations and fears amongst the students, the investment of class time calmed those fears and allayed their reservations.

Modeling

I am a strong believer in modeling. I modeled the first blog post on the first day of class so that students could see the standard that I was expecting and the kind of things they should aim for when creating their own blog entry. I believe that modeling an expected behavior, standard of work, and depth of coverage for an assignment is a crucial role for an educator so that students can move forward in the first instance simply by mimicry. As they become more comfortable and competent, they are then able to impose their own unique style and integrate their own perspectives. I gave the students the following requirements for their blog entry:

- Minimally, you must summarize the major concepts of the day
- Add your own (critical, but constructive) thoughts about the material
- Consider how the material relates to other classes you've taken
- Add in media that helps communicate some of the class principles (e.g. YouTube videos, web URLs, animations)
- Connect the class material to your own experiences
- Discuss how the material helps you achieve your future goals

Additionally, students were required to make at least ten comments (I'll be honest, I didn't count!) on their classmates' entries.

Grading Blogs

I had concerns about how to grade a blog assignment. I did not know what to expect and I had no benchmark to work from. In discussions with students, I explained that completing the first point above would earn maximally a C grade if the work was correct, but that adding in additional material from the list moved one toward an A grade based on the insight of the entry, the insight of the students comments, and the use of some media in the blog entry (see Table 1).

Table 1. Rubric for Grading Blogs

A	Discuss how the material helps you achieve your future goals
	Connect the class material to your own experiences
	Add in media that helps communicate some of the class principles (e.g. YouTube videos, web URLs, animations)
	Consider how the material relates to other classes you've taken
	Add your own (critical, but constructive) thoughts about the material
C	Minimally, you must summarize the major concepts of the day

It turned out that my grading fears were unfounded as students, in general, were enthusiastic and eager to impress their peers. In fact, it turned out that the blog entries were some of the best pieces of writing I had seen in a science class. I was also impressed by how the students integrated their own personal experiences into their entries and comments on other students' entries.

Other Logistical Issues

I wanted the students to feel as though the blog was theirs, even though it was something I had set-up. To facilitate their feeling of ownership, I did not 'assign' specific bloggers for specific days. Rather, after my initial modeling on the first day of class, I nominated a single student to be the next blogger. It became that student's responsibility to nominate the blogger for the next day of class and so on. Besides a prod or two during the short semester, the students took control of the blog and needed little guidance or prompting to keep up with their entries and comments.

Colleagues who have mimicked my blogging experiment have found that in a 15 week semester it is somewhat harder to maintain student engagement with the blog. It is possible that the Maymester format is more amenable to blogging than in the regular 15 week semester. However, making the blog the focus of the class could possibly offset this challenge.

Students Perceptions about Blogging

Although I was initially skeptical about the value of blogging in the classroom, I was subsequently impressed by the quality of the student entries and comments. As an afterthought, I decided to obtain Institutional Review Board approval to collect student perceptions on the blog as part of their class. Also, two colleagues (Drs. Lisa Johansen

and Laurel Hartley) were interested in exploring the use of blogging in their own classes. We have now collected some data on student perceptions on blogging in the science classroom from three classes with three different instructors and are working to publish the results of our analyses of the student comments. Below, I have briefly summarized some of the information that I obtained from my own students regarding their blog experience in my Maymester class.

- 80% of students strongly agreed with the statement "blogging increased my interest in the class material."
- 80% of students agreed with the statement "blogging made me more comfortable about communicating about biology in general."
- 75% of students agreed with the statement "I enjoyed blogging."
- 75-100% of students agreed, or strongly agreed with the statements "blogging facilitated my sharing personal experiences related to class" "blogging increased my motivation or empowered me to contribute during class discussions"; "blogging helped me share my background knowledge with my classmates"; and "blogging helped me share my background knowledge with the instructor."

Although my main goals were to provide a forum for students to engage with the material outside of the classroom, and to share and integrate their personal experiences, I hoped that the blog would allow students to explore the influence of culture and society on their perception of biology. Students reported the following on how blogging impacted their perception of the interface between society, culture, and biology:

- 100% of students agreed or strongly agreed with the statements that "blogging helped me appreciate how different social groups interpret and act on biological information"; "blogging helped me appreciate how cultural heritage can influence how people interpret and act on biological information"; and "blogging facilitated my understanding that culture and society plays an important role in the choices cancer patients make in their disease management."

Additionally students were in overwhelming agreement that the blog was a useful forum for them to reflect on the class content and receive clarification on the major principles from each class. The students reported that they could better appreciate how their classmates perceived and understood the material, they reported that they gained insight to how learning largely occurs outside the confines of the classroom walls, and they reported that the blog helped them perceive material in a context different to the one in which they had initially synthesized the material. In general, students found that blogging facilitated their reflection on the class material and aided their comprehension. In respect to using the blog to drive student understanding of their digital footprint and technical awareness one student noted that:

> *"I thought I was "on top" of technology and it's [sic] advancements when I first started the class. It made me realize there was a lot more out there to have as a resource. I have discussed electronic/social media responsibility as well as benefits with countless friends, relatives, and coworkers. It has been eye-opening."*

Future Directions

As noted above, two colleagues have explored the use of blogs in their classrooms. It seems that some class formats are better suited for the use of blogs as a learning tool than others. We have learned a lot from our combined experiences with blogging. If we were to repeat the use of the blog in our classes we would offer the following pieces of advice:

- Model very clearly at the beginning of the semester
- Invest class time exploring the blog in class
- Make the blog the focus of the class as a resource
- Encourage colleagues to comment and participate
- As an instructor, frequently refer to the blog and its content for class purposes

Concluding Remarks

For my use in the accelerated Maymester format, the blog worked well to drive student engagement, to promote student reflection, to make students aware of their online presence, to provide a forum for writing, and to encourage students to share how their own background influences their experience of biology. I have not subsequently used the blog in my Cancer Biology class as it has since only run in the 15 week semester. However, as the Maymester approaches and I once again adjust my class, I will most certainly be considering it as a learning tool. On a personal level, I learned that for my students to better engage the material, to better reflect, and to better explore the domain, I have to let go of some of the control that we are all accustomed to having in the classroom. I simply have to provide a forum in which my students can explore, engage, and relate.

Bio

Tod Duncan, Ph.D. is a senior instructor in the Department of Integrative Biology in the College of Liberal Arts and Sciences. His research background was in the regulation of the eukaryotic cell cycle and mechanisms of DNA repair as they relate to cancer. Currently, Tod does not have an active bench research program; however, he is engaged in several science education projects. Tod is involved with the Rocky Mountain Middle School Math and Science Partnership (RMMSMSP), is a member of a panel advising the National Association of Biology Teachers, and takes an active role in promoting better science pedagogy whenever possible. Currently, his science education interests involve the use of Web 2.0 tools in high-enrollment classes where there is significant diversity in the student body. Tod believes that the online environment can be used to foster student-student and student-instructor relationships when those relationships cannot effectively be built in the first person.

Chapter 17

Best Practices for Web Conferencing With Adobe Connect Pro

Jozianne Mestas

In my role as an Electronics Specialist at the University of Colorado Denver, I'm often asked to provide technical assistance for Adobe Connect Pro. Adobe Connect Pro is web conferencing software that enables its users to share documents, files, chat, and broadcast live audio and video. People use Adobe Connect Pro for a variety of reasons including teaching a course, demonstrating a particular task, collaborating on documents, software training, and event distribution. However, these are just a few examples of the ways people use Adobe Connect Pro—the possibilities are really endless. In the following chapter, I will discuss some tips on how to use Adobe Connect Pro—and really web conferencing in general.

Planning

For a successful Adobe Connect Pro web conference, preparation is imperative. The first thing you need to do is to determine the purpose of your web conference and exactly what content or materials you would like to share with your audience. For instance, you can share:

- PowerPoint presentations
- Screen share to display documents, applications, files or websites
- Audio or video

Establishing the purpose for your web conference will help you plan accordingly. If you decide to share PowerPoint presentations or documents, then you should gather all necessary files prior to your web conference. You should also run an Adobe Connect Pro connection test on your computer to ensure that your computer and network connections are equipped to provide the best possible Connect meeting experience. A connection test can be conducted at the Adobe website: https://admin.adobe.acrobat.com/common/help/en/support/meeting_test.htm.

If you plan to share audio or video from a webcam or a microphone during your web conference, you should set it up and test it before your web conference. Be aware that setting up a webcam with a microphone, or another video or audio source, may require the installation of separate software, and therefore, take additional time to setup. This is something you will want to address prior to the start date and time of your web conference.

I also strongly recommend that you familiarize yourself with the functions of Adobe Connect Pro prior to your meeting, or even better, conduct a presentation rehearsal. Gather all necessary equipment and files and test all of the functions of Adobe Connect Pro that you plan to use, such as your designated web link used to enter the meeting, audio, video, screen share, recording, etc. And for the actual web conference, I highly recommend that you have a separate laptop that will not be used for presenting but simply as a way for you to login as a web conference participant to see exactly what your participants are viewing. I also highly recommend using a wired

Internet connection, as opposed to wireless, whenever possible to ensure a more stable connection.

Also, be sure to distribute any information that your web conference participants may need (e.g., the web conference meeting URL and any audio conferencing dial in number, if applicable) before the web conference begins. This will hopefully ensure that your participants are able to successfully connect to your web conference and minimize any technical issues that may cause a delay in starting the web conference. Instruct your participants to connect to the web conference prior to the actual start time so that there is adequate time to address any technical or connection issues.

PowerPoint Preparation

If you plan to share a PowerPoint presentation as a designated meeting host or presenter, when you login you will be prompted to install the Adobe Connect add-in. Depending on the speed of your computer, this should only take a minute or two. If you run the previously mentioned Adobe Connect Pro connection test on your computer, it will ensure that you have the necessary add-in installed.

When creating a PowerPoint presentation for Adobe Connect Pro, be conscientious of the font sizes you select to ensure that your web participants will be able to read your slides. The same principle applies for using intricate pictures, graphics and non-standard fonts. Since Adobe Connect Pro uses its own reader to view the presentation, in order to make sure all participates can view the content, it is best to use simple fonts, graphics, and animations. This is another instance when rehearsing your presentation and even logging in on a separate computer, as a participant, will be beneficial so that you can see your presentation just as your viewers will.

Screen share

Adobe Connect Pro enables you to share your computer screen with your viewers. In other words, screen sharing enables your audience to view what you have on your computer screen. You can share documents or even a PowerPoint by either doing a screen share or by uploading the documents you want your users to see directly to Adobe Connect Pro. But according to the Adobe Connect Pro website, (http://www.adobe.com/products/acrobatconnectpro/faq/): "When presenting or collaborating, it is a best practice to upload documents to the meeting rather than use screen share. Advantages include easy organization and preparation for presenters, a better and higher fidelity viewing experience for participants, lower bandwidth requirements, and improved collaboration and annotation with the whiteboard."

However, often you may find yourself making last minute changes that do not enable you the time to upload your files to Adobe Connect Pro or a question might come up during the web conference in which you need to share your screen (i.e., do a screen share) to demonstrate something. More often than not you should not have any problems with doing an impromptu screen share. However, if you know in advance that you need to do a screen share and use a specific piece of software, then you should strive to open any applications you will use prior to the beginning of your presentation to avoid any delay waiting for them to open.

If you choose to utilize the screen share option, it is recommended that you use the screen resolution of 1024x768 to ensure that your participants can see your screen without demanding too much computer network bandwidth.

As a meeting host, you can also optimize the room bandwidth based on the type of network you are connected to, such as DSL or LAN. Your web conference

participants also have the option of selecting a connection speed based on the type of network they are connected on, such as DSL or LAN. These selections should help optimize the quality of the display for participants while balancing the network bandwidth requirements.

Audio

Adobe Connect Pro enables you to share audio with your participants. To add audio to your web conference there are a few options:

- Use a USB microphone, headset, or webcam with a microphone
- Use a telephone and audio bridge (not available on all systems)

If you choose to connect a webcam or microphone to your computer, the Adobe Connect software provides an audio setup wizard. Be sure to run this setup wizard and test prior to your web conference to make sure that your microphone is working correctly.

Although Adobe Connect Pro enables multiple hosts and presenters to add microphones, I recommend limiting the number of open microphones at one time to minimize the possible confusion caused by multiple individuals trying to talk all at once. Using a meeting moderator or agenda may also help organize the order of a web conference and help avoid these issues.

There is more than one Adobe Connect Pro server at our university. One of them has an audio bridge—which provides users with ability to dial in with a phone to get the audio—and one of them does not. There are benefits to using the integrated audio conferencing service in Adobe Connect Pro. For example, you can easily mute individuals, or all, audio connections if necessary. This can become helpful if a participant mistakenly puts his or her audio conference line on hold and hold music begins broadcasting to your entire meeting. If you are using an audio bridge in Adobe Connect Pro, be sure to instruct your audio conference participants not to put their phone line on hold.

Video

To broadcast video for your meeting, the setup process is similar to setting up a microphone. You can choose to use an external USB webcam connected to your computer or a built-in webcam (if your computer is already equipped with one). There are also video to USB adapters that you can use to connect various cameras to your computer, as long as you have the correct software drivers installed. Once you decide on a camera to use, simply select your camera and preview it to ensure that it is working correctly. Be aware that broadcasting video for your meeting can increase the necessary bandwidth required by your meeting participants.

Running a Web conference

As previously stated, I strongly recommend that you familiarize yourself with the functions of Adobe Connect Pro prior to your meeting. Also distinguish the differences between meeting user roles, such as host, presenter, and participant, so that you can appropriately assign these roles based on the desired level of function permissions. Setting up an additional laptop to view the meeting as a participant is also strongly recommended.

If applicable, allow time during your meeting for a question and answer period. If possible, assign a moderator, or someone to handle the Q&A and chat pods during the meeting, so that they do not distract you from the presentation.

Concluding Thoughts

Using Adobe Connect Pro can be beneficial because it enables individuals regardless of location to participate in a meeting, receive training, or view a presentation. All they need is a web browser and the Adobe Flash Player, which are typically already installed on most computers. Participants just click on a URL to be instantly connected to a meeting. If you work at the University of Colorado Denver and would like to learn more about using Adobe Connect Pro please contact either Educational Support Services or CU Online. However, if you work elsewhere, be sure to check out what web conferencing software your institution has available. Many of the best practices addressed in this chapter can help you deliver worry free web conferences regardless of the application used.

Additional Resources

Best Practices for Adobe Connect Pro web conferences:
https://admin.adobe.acrobat.com/_a295153/connectbestpractices/

Web conference Roles and User Interface Overview
https://admin.adobe.acrobat.com/_a227210/roles

For Participants: Participating in Your First Connect Pro Meeting (PDF):
http://seminars.adobe.acrobat.com/vqs-participatemeeting/

For Hosts or Presenters: Sharing Content During a Meeting:
http://help.adobe.com/en_US/AcrobatConnectPro/7.5/Using/WS0A9F9AB5-C032-457a-9350-16CBF56C4489.html

Bio

Jozianne Mestas is an Electronics Specialist in the Educational Support Services department at the University of Colorado Denver. She provides technical support to faculty, staff and students for distant learning courses delivered through videoconferencing. She also provides assistance with classroom equipment, computer support and web conferencing assistance using Adobe Connect Pro. She has a MA in Information and Learning Technologies with an emphasis on Adult Learning from the University of Colorado Denver, as well as a BA in Technical Communications from the Metropolitan State College of Denver.

Chapter 18

Lecture Capture Made Easy with Panopto

David Paul

At the Anschutz Medical Campus at the University of Colorado Denver, faculty and students alike were requesting an easy way to record face-to-face classroom lectures. As a result, Educational Support Services (ESS) staff at the Anschutz Medical Campus began researching different lecture capture platforms (also known as lecture recording systems). The following paragraphs describe the process we went through, the benefits of Panopto, and how faculty are using Panopto across the university.

What is Lecture Capture?

If you are new to the term, "lecture capture" is "an umbrella term describing any technology that allows instructors to record what happens in their classrooms and make it available digitally" (Educause, 2008). So while there are a range of applications available to simply record what happens in a classroom, most of the time when people talk about lecture capture they are actually talking about lecture capture enterprise level platforms implemented across a school, college or university to record classroom lectures. [For more about Lecture Capture see Educause' "7 Things you should know about… Lecture Capture" at http://net.educause.edu/ir/library/pdf/ELI7044.pdf (Educause, 2008).]

Why Panopto?

There are many different lecture capture platforms to chose from. Popular names include Tegrity, Camtasia Relay, and Echo360, and Accordant. In addition to Panopto, we tested Accordant and Echo 360. We dismissed other systems because they didn't fit in with our configuration or required criteria. Each of the platforms we tested have some strengths and some weaknesses. In the end we end, we chose to license Panopto (http://www.panopto.com) because we were looking for a lecture capture platform that:

- Runs on computers already installed in classrooms
- Was easy for faculty to operate
- Required minimal technical staff support
- Could be automated to start and end automatically
- Interfaced with our LMS (Blackboard)
- Was reasonably priced

How it Works

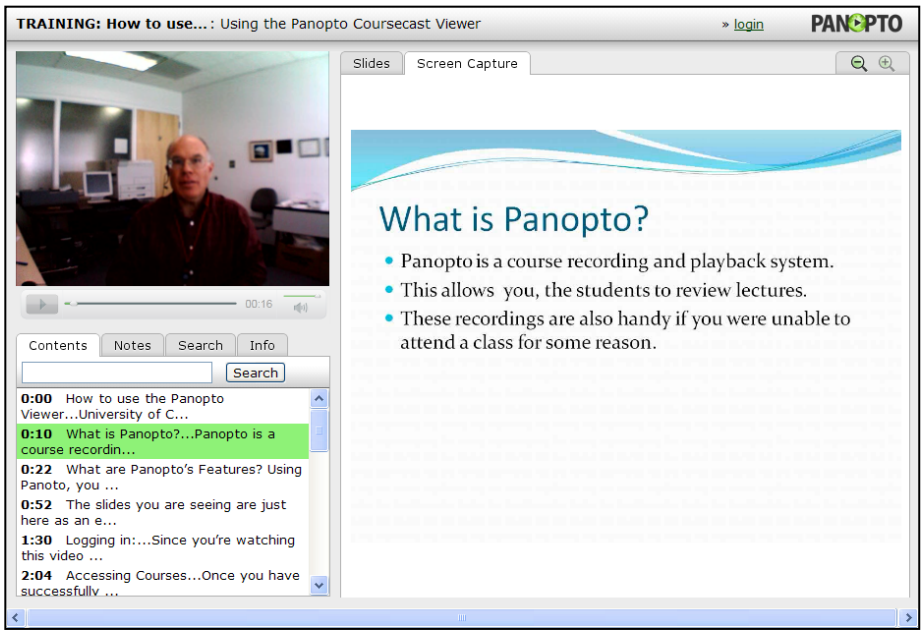
Nearly every classroom on the Anschutz Medical Campus is set up with at least one camera, a microphone, and a computer running Panopto. To record a lecture, the instructor, or a student assistant, starts the program, selects the correct course, verifies that they have a good video and audio signal via the preview window, clicks on the big red "Record" button, and then continues to teach their class as they normally would.

Once they are finished, they bring the Panopto window back up and click on the "Stop Recording" button.

Once they click stop recording, their lecture is automatically uploaded to a server and encoded. Panopto then generates a URL to the recording that can then be distributed to students via email or posted in a Learning Management System (e.g., eCollege or Blackboard). In fact, faculty who use Blackboard on our campuses benefit from Panopto's Blackboard building block which allows students to access the Panopto recordings for their class through the corresponding Blackboard course shell. Links to recordings are automatically uploaded to the Blackboard server as soon as they are completed.

In addition to recording and distributing lectures, Panopto also has reporting features. This allows instructors and administrators to see how often their students are watching the recordings and can provide details on an individual student's use. It can even tell you which part of the recordings students are watching.

For a more detailed demonstration of the system, click on the image below or simply go to: http://coursecast.ucdenver.edu/CourseCast/Viewer/Default.aspx?id=02095990-acd1-4f67-811a-0030d6b37a23



How it's Used

While lecture capture systems like Panopto can be used in a number of different ways, most faculty who use Panopto simply use it to record lectures they are already giving in a face-to-face setting. For instance, in the Schools of Medicine and Pharmacy, literally every class is recorded.

The recordings allow students to review past classes or to view lectures for classes they might have missed. If a student doesn't remember the session a particular subject was covered, they can search by keywords because all of the PowerPoint slides are captured and indexed.

Moving Forward with Panopto

Implementing Panopto on the Anschutz Medical Campus has been a success. Certain programs have even hired student technology assistants to handle the recording duties, as well as assisting instructors with technical issues in the classroom. This approach has been very successful, ensuring high quality recordings, without the need for hiring additional staff. If you have any questions about Panopto, please contact Paul Herndon or David Paul.

Bio

David Paul has been working with academic technology since 1986. He is currently the Manager of Educational Technology at the University of Colorado Denver, primarily at the Anschutz Medical Campus (AMC). He has offered numerous workshops and presentations on learning management systems, classroom lecture capture, audience response systems and other technology tools for educators. David has been at the University of Colorado since 1993 and enjoys working with students, faculty and staff to leverage educational technology in the classroom. David and his staff also manage the computer labs on both the CU Denver downtown and medical campuses, as well as supporting test processing, course/faculty evaluations, room scheduling and computer-based web conferencing at the AMC.

Chapter 19

Taking Class to the Airwaves: BlogTalkRadio

Connie L. Fulmer

This past year I discovered BlogTalkRadio while attending an educational leadership conference. The Executive Director at the conference reported that she was using BlogTalkRadio to interview various educational-leadership faculty members around the country on a variety of important policy and leadership topics. She explained how the interviews were available online at the organizations' BlogTalkRadio site (http://www.blogtalkradio.com/ucea) and that upcoming episodes could be attended live or listened to later in an on-demand format. I was intrigued by BlogTalkRadio. How did it work? And, how could I use it in my online classes?

BlogTalkRadio

BlogTalkRadio (www.blogtalkradio.com) is a free social networking tool that allows anyone anywhere to host a live Internet Talk Radio show by using only a telephone and a computer. The tool allows "citizen broadcasters"—which I quickly defined as teachers and professors—to share content, conversations, interviews, and student presentations in a public world-wide forum. On top of that, the behind-the-scenes technology allows the seamless integration of BlogTalkRadio with Facebook, Twitter, and Ning.

To listen and follow shows, you simply need to create a free account by providing some basic information—a username, email, and a password. During the account creation process, you can also create a free radio talk show of your own. Each show is archived automatically and readily available in multiple formats: MP3, RSS subscription or iTunes. As a host of your own radio talk show, you have access to a customizable profile, where videos, a blog, or links to other websites or widgets can be added.

The basic free BlogTalkRadio account provides for up to five simultaneous guests with up to a two-hour time limit per show. You can also upgrade to a Premium Hosting Package that enables you to do the following:

- screen callers in a private room right from the hosting switchboard;
- host the show with a headset (rather than the phone); and
- schedule shows for up to three hours (the free package has a two-hour limit per show and can be scheduled in 15, 30 and 60 minute sessions).

The process for hosting a show is very easy. When you set up your BlogTalkRadio account, simply check a box to create a free radio show. Once you do this, you can create an upcoming episode at which time you will be given two phone numbers. The first phone number is for you to call into BlogTalkRadio to host the show. The second phone number is for guests. Using the second phone number, students can call into the show as guests. The phone numbers of guests calling into the live show appear on the host's switchboard page. The host can put a listener "on air" by simply clicking an icon beside the phone number. After the show those who missed the live show can download and listen to a recording of the show. Recordings can be linked or embedded into a variety of websites, a blog, or a Learning Management System (e.g., eCollege or

Blackboard). There are no limitations to how many users can listen live or to the recordings of your shows.

This new tool allows users/hosts to broadcast live from any website, to conduct interviews with multiple callers, or to moderate a dialogue with one or more guests. The opportunities to use this new tool at this point in time seemed endless to me. But if the idea of a talk-radio-show turns you off, think of BlogTalkRadio as a web-based conference call, with the capacity for five callers at a time with additional people in the queue. By using BlogTalkRadio, you are able to connect yourself to your intended audience by using just a phone and a computer. You can provide information, in a lecture format, or you can invite callers/listeners to respond to questions, or present information. I am using this tool in my current online class and I am very excited about the possibilities BlogTalkRadio provides for increasing the level of interactivity in my online classes.

Getting Started with BlogTalkRadio

I lost no time in clicking through the registration page, and in a few minutes, I created Leaders Mindset as my online identity. I decided immediately that I would use it in my first fully online class in the following semester. I read through all of the Frequently Asked Questions (FAQ) for BlogTalkRadio 101 (overview, virtual tour, getting started as a host, using the switchboard, and more). I set up an upcoming episode and contacted two of my colleagues to help test my first show. I added opening music to my scheduled show by uploading an audio file and then scripted out what I wanted to say.

My pilot was successful on multiple levels. One of my colleagues was able to make contact and be on the show. The other colleague was able to find the recorded session and listen to the archived show afterwards. For me, I was excited about hosting my first BlogTalkRadio show and about the possibilities of using this new tool in my online courses. However, I knew that planning was going to be very important. While I was experienced in teaching graduate students in face-to-face classes, this new format was going to be different. I would be sitting at my computer with my phone set on speakerphone. I'd be talking to a screen, assuming that my colleagues or students would be out there listening to the show. I had to figure out the best use of BlogTalkRadio for my students and myself in order to get started.

Prepping for Taking My Class to the Airways

My first question, was how best to use BlogTalkRadio. Any technological tool used in the service of teaching is only a tool. The learning experience has to be sound and well designed to facilitate student learning. If technology is to be used, the tool must support the intended learning goals. This particular online course was the sixth in a cohort of education doctorate students, who had been together in face-to-face classes. Some of these classes were hybrid, but students had interacted with each other in real time over the prior two semesters. They knew each other. I was the outsider to this learning community. So, my first choice was to use BlogTalkRadio as a vehicle for students to introduce themselves to me, the newcomer. My second choice for using BlogTalkRadio was to host students presenting their book reviews and leading a conversation about the contents of that book for our leadership course. Let me explain how I accomplished each of these goals.

Hosting Student Introductions on BlogTalkRadio

I shared with students how to access BlogTalkRadio at www.blogtalkradio.com and how to set up an account as listeners. I also provided them with information about the upcoming episode and shared with them the call in number so they could introduce themselves to me. Since my goal was to make class as asynchronous as possible, I provided two nights for these introductions, as well as an alternative way for those who couldn't attend either night to email me a personal introduction. I also prepared five questions designed to get students talking not only to each other but also to share their initial thoughts on leadership. The closing question was focused on something that perhaps others in the class may not already know about each student. Students were to prepare ahead of time talking points to answer the following questions:

1. What is your name?
2. Where do you now work and what is your role in that organization?
3. Why did you decided to apply for the Ed.D. program?
4. What are some of your initial thoughts about the word leadership(i.e., what is it, your experiences with leaders - good/bad, what kind of a leader you would like to become, what goals you think you will be able to accomplish as a leader, what you hope to learn in this course, other ideas you want to share about leadership)?
5. Something interesting about yourself (non-fiction) that you are willing to share that perhaps others in your class may not know about you (e.g., the alligator wrestling contest you won last year, that you've lived in eleven states so far, that you used to be a lawyer, or worked for the CIA).

As I participated in hosting these student introductions, I was keenly aware that as each student called in to BlogTalkRadio, how the format showcased each individual student. I was also aware from looking at the chat feature attached to the BlogTalkRadio show that other students were signed in and listening to these introductions. While most students introduced themselves on the first night— with fewer students picking the second night—when those last students introduced themselves the following evening, most all of the other students in the class were present in the chat feature to listen to these remaining introductions. Both of these sessions were recorded and archived for students to access later. I would definitely repeat this introductions strategy in a future online class.

Hosting Book Review Conversations on BlogTalkRadio

The second time I used BlogTalkRadio was to host Book Review conversations. Often when students do book reviews, the only person who gets to see the book reviews is the professor. This is unfortunate, because the professor more than likely has already read the book, and those who could benefit most from these reviews are the other students in the class. The plan for this group was to have each student select a book for review and to present the key points of the review in five PowerPoint slides or an equivalent format. They were then to upload the PowerPoint slides into eCollege (one of two learning management systems used at the University of Colorado Denver) so that other students could review their slides before each presentation. This approach would also enable students to view the slides while listening to the book conversation live on BlogTalkRadio. I then created a signup sheet using Google Docs for students to sign up for one of five slots on three different nights to conduct their book review.

After the initial preparation, it was finally show time. Students called in to the live show during their allotted time and engaged with me in a conversation about the book.

At the end of our conversation, each book reviewer asked listeners to call in and give their responses to the following questions—given to them (i.e., the listeners) prior to the activity:

- What is the takeaway point of the book for me?
- How could I use the ideas in this book as a tool for leaders, leadership, or leading?

In this fashion, the book review assignment benefited not only students reviewing individual books but also the students listening. A threaded discussion was provided along with the link to the recording for students not able to attend the book reviews live, so that all could participate in the activity.

Final Thoughts about BlogTalkRadio

Getting set up in BlogTalkRadio was easy. The harder part was thinking through the actual "performance" of hosting a live show focused on facilitating student learning. Starting with the goals for each of these activities, I did my best to think through the best possible use of this new tool to reach those learning and performance goals for students. Even though I had never scripted what I intended to say in my face-to-face classes, after listening to the recording of my pilot session with BlogTalkRadio, I felt compelled to script all future class sessions. With a script in front of me and the agenda in front of my students, I felt more confident in how this online session would go, especially when working with real students in a live online class session.

While I was aware of how important the scripting was for me in planning for these sessions, I also realized by listening to students when they introduced themselves to me how important preparing those talking points was for them. Most students focused on their answers. They came across as more polished and knowing some of the nuances of leadership. Other students came across with an unfocused delivery that gave little evidence of their preparation for the session. I believe the process of providing structure to BlogTalkRadio sessions in the form of question prompts, asking students to prepare talking points ahead of time, and showcasing individual student responses in a web-based talk-radio format, heightened student motivation and engagement, and produced higher level responses from students on planned topics of interest to all.

While BlogTalkRadio is a new tool for me, I am enjoying thinking and planning for all of the possibilities of this new tool for enhancing and increasing the interactivity of my online courses. Do yourself a favor and check out BlogTalkRadio! Be sure to send me information about upcoming episodes of your live show. I hope you enjoy using BlogTalkRadio in your teaching as much as I have.

Bio

Connie Fulmer earned her Ph.D. in Educational Administration at The Pennsylvania State University and started her academic career at Northern Illinois University. In July of 2000, Connie joined the Administrative Leadership and Policy Studies (ALPS) faculty here at UCD and served in the following leadership positions: Program Chair of the ALPS Principal Licensure Program, Coordinator of Administrative Leadership and Policy Studies Division, Teacher Education Division Director, and Program Chair of all programs in the School of Education and Human Development (SHED).

Chapter 20

Supporting Faculty Through Podcasting

Anna Thai
&
Brian Yuhnke

In today's world of academia, you may all be quite familiar with this scenario. It's the start of yet another year and you are in the midst of getting your courses ready for the semester. You've just come back from a conference and are completely overwhelmed by buzz words such as "Web 2.0," "Podcasts," "Twitter," "Social Media," "Micro-blogging," "RSS," "Wiki," "Blogs," "Second Life," "Cloud Computing" and so on. You'd love to integrate some of these technologies into your class but have no idea where to begin. It's beginning to feel like technology has become your biggest enemy.

Well you are not alone, here at CU Online—like similar departments at other institutions—we strive to find different ways to help faculty make sense of technology and find ways to meaningfully use technology in their classrooms. We hold workshops, conferences, and work one-on-one with faculty (see Lowenthal & Thomas, 2010 for a description of other ways we support faculty). But one day during a brainstorming session, it occurred to us that the University community could benefit from a weekly podcast that helps faculty and staff stay in "tune" with technology. The light bulb came on and TechHEds was born. In the following paragraphs, we share our experience creating TechHEds—a weekly podcast we created for faculty. While neither of us work at the University of Colorado Denver anymore and TechHEds is no longer produced, in the following pages we will share our experience supporting faculty through podcasting in hopes of motivating some of you to start your own weekly podcast.

What is a Podcast?

I'm sure you have all heard of the word "podcast" before, but do you know what the it means? Wikipedia describes a podcast as "a series of digital media files (either audio or video) that are released episodically and often downloaded through web syndication" ("Podcast," 2010, para 1). Typically, a podcast is a series of audio files (e.g., mp3 files) published regularly that users can subscribe to and listen to. Users have the ability to download each episode of a podcast onto any mp3 audio device such as an Apple iPod, Microsoft Zune or Creative Zen. Accessing a podcast though is not just limited to an mp3 audio device; you can also play the audio or video file on your computer by accessing it directly from a website (e.g.,. National Public Radio's http://www.npr.org/rss/podcast/podcast_directory.php) or download it to the desktop of your computer and listen to it using a media player such as Windows Media Player, RealPlayer or iTunes.

The word podcast originally derived its name from the iPod manufactured by Apple Inc. But podcasts and podcasting did not originate from Apple, and it does not require owning an iPod to listen/or view podcasts. Many early podcasters adopted the term. Then in the summer of 2005, Apple added podcasting support to iTunes allowing iPod users to subscribe and listen to podcasts. It's no surprise that the term "podcast" stuck. Today many explain that a Podcast stands for **P**ersonal **O**n**D**emand **Cast.**

A great thing about podcasts—especially audio podcasts—is that they are easy and fairly inexpensive to produce. A full production studio is far from necessary to begin podcasting and if you already have access to a desktop computer or laptop, this can easily be done for under $50 (though you can of course spend much more). The basic equipment needed to start creating a podcast includes the following: (a) a computer (PC or Mac); (b) a USB microphone or headset microphone; and (c) audio recording software (see Table 1 for more specifics on microphones and software).

Table 1. Podcasting Tools

Tool	Options
USB Microphone	**Logitech** http://www.logitech.com/en-au/speakers-audio/microphones
	Zoom H1 Handy Recorder http://www.zoom.co.jp/english/products/h1/
	Snowball http://www.bluemic.com/snowball/
USB Headset Microphone	**Logitech** http://www.logitech.com/en-au/webcam-communications/internet-headsets-phones
Software	**Audacity** http://audacity.sourceforge.net free and cross platform (PC / Mac)
	GarageBand http://www.apple.com/ilife/garageband/ Comes standard on new Macs (Mac)
	Adobe Audition (PC) http://www.adobe.com/products/audition/
Resources	**Audacity** http://audacity.sourceforge.net/manual-1.2/tutorials.html http://www.how-to-podcast-tutorial.com/17-audacity-tutorial.htm
	Podcast FAQ http://www.podcastfaq.com/creating-podcast
	GarageBand http://www.devdaily.com/apple/mac/garage-band-create-podcast/

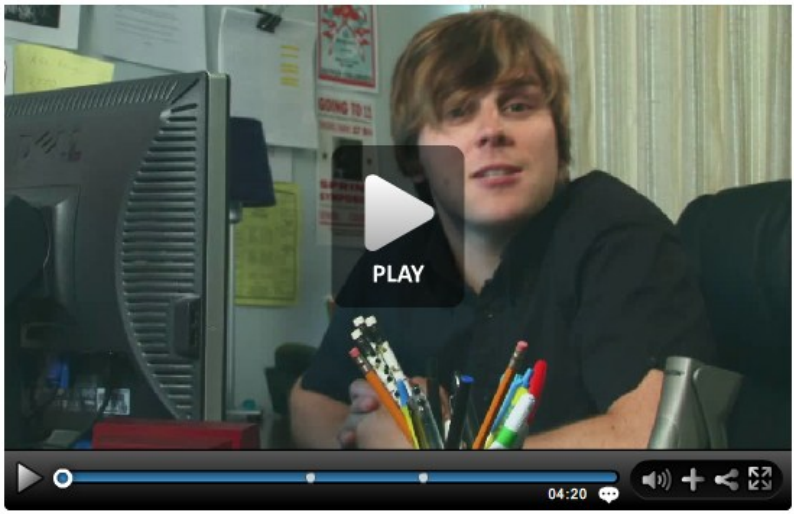
If you really enjoy creating podcasts, one thing you will soon realize is that though adequate, your current setup will never seem to be enough. The TechHEds team began recording in a tiny studio roughly the size of a closet and later expanded into a more "professional" studio that included higher end equipment, video cameras, and a TriCaster that publishes a live video version of the show.

We recommend though that you start with a simple setup and only build on it over time if your needs dictate it.

TechHEds and Other Educational Uses of Podcasts

As we touched on earlier, we started thinking about how to use podcasting to support our University community a few years ago. We came to the conclusion that faculty—just like students—could benefit from some of the conveniences of podcasting. So we created TechHEds, a weekly podcast to help faculty stay in "tune" with technology. There have been over 75 episodes of TechHEds covering content from academic dishonesty to teaching with games, to music in learning.

In addition to creating audio podcasts, the TechHEds team produced a couple of video podcasts, which are downloadable short videos. The following are two examples.



TechHEds Video Podcast #1 Twitter
http://www.viddler.com/player/29baaf11/

TechHEds Video Podcast #2 Google Docs
http://www.viddler.com/player/f274a002/

From our perspective, TechHEds was a success. In addition to helping faculty stay in tune with advances in technology in higher education, we strived to model ways faculty might use podcasting their own classrooms. For instance, podcasts can be used as a creative way to introduce yourself to your online class. Podcasts can also be used to give your students a break from reading another tedious chapter by recording short lectures' as audio or video podcasts. Finally, you can even have your students create podcasts instead of a traditional paper or presentation.

Concluding Thoughts

We hope we have added a little inspiration for you to go out and start creating your own podcasts. Whether it is a short introduction of yourself for your students or spicing up a lecture, the topics are endless! Feel free to contact us at CU Online. We don't want you to walk away feeling like technology is your enemy, but rather we strive to help you gain the confidence you need to embrace technology with open arms. The popularity of podcasting has and will continue to grow, so we encourage you to challenge yourself and find creative ways to integrate podcasting into your classroom.

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Bios

Anna Thai has returned to the land down under and is currently working as a LMS Infrastructure Technologist at Victoria University. In between researching and testing emerging technologies for implementation, her work experiences in both Australia and America and given her the opportunity to outreach to faculty. She has a MS in Information and Communication Sciences from Ball State University and hopes to return to Colorado to pursue her PhD in Educational Technology.

Brian Yuhnke adamantly believes that if teaching is boring for the faculty then it is even more so for the students. Brian is motivated to engage faculty in the use of technology to make learning fun and innovative. He is an Instructional Designer at Case Western Reserve University in Cleveland, Ohio, and an Instructor for the School of Education and Higher Development at the University of Colorado Denver. Prior to moving to Cleveland, Brian did sensational stuff with video, supported web conferencing and online lecture recording, researched emerging technologies and all kinds of other randomness for CU Online at the University of Colorado Denver. He has earned a MEd in Instructional Technology and a Bachelor of Arts in Video and Audio Production from Kent State University.

Chapter 21

Using Reflection Surveys to Improve Teaching and Learning

Jackie Dobrovolny
&
Patrick R. Lowenthal

Faculty are being held accountable these days for quality teaching, student learning, and student satisfaction like never before (Lowenthal, 2008). While research and publishing are in many ways still the sine qua non for faculty success and promotion as well as institutional prestige (Boyer, 1990), more emphasis is being placed on quality teaching these days (Lowenthal, 2008). At the University of Colorado Denver, like many other institutions, end-of-course student evaluations (called FCQ's) are one of, and unfortunately more often than not, the most often used method to assess how well individual faculty are teaching. And while research suggests that these evaluations can be useful and even improve *aspects* of teaching if used in certain ways (e.g., with a consultant or a peer) (McKeachie, 1997), these evaluations often suffer from a number of weaknesses (see McKeachie, 1997). For instance, researchers have expressed concern regarding how such things as class size, grading leniency, workload, and even learning environment and delivery format influence these evaluations (d'Apollonia & Abrami, 1997; Greenwald & Gillmore, 1997; Kelly, Ponton, & Rovai, 2007; Marsh & Roche, 1997). While the average faculty member tends to be suspicious of their value, these evaluations appear to do a decent job of measuring student satisfaction. Issues of selectively and inconsistently using these evaluations for tenure and promotion aside, perhaps the biggest problem we find with these evaluations is that faculty often do not receive their end-of-course student evaluations for weeks, if not months after the semester. This is too late to fix any problems with the course in question. Instead, faculty have to wait to make adjustments to the course and their teaching strategies until the next time they teach the course in question.

In addition to this timing problem, in our experience, every group of students is slightly different. So, if we make revisions to the spring version of course B, based on end-of-course student evaluations from the fall version of course B, we may address a problem that does not exist. We may also make a change that creates problems with this different group of students.

To address this problem, we began using periodic reflection surveys in our courses. We started using them a number of years ago in our face-to-face courses but over time we began using them in our online courses as well. Basically, we use these periodic reflection surveys to customize our courses to each group of students, to help students link new information to their prior experiences, and to encourage students to establish a reflective approach to their career. In the following chapter, we describe how we use reflection surveys, some lessons we have learned, and some tips for ways you can use reflection surveys in your courses.

Background

The focus of this chapter is on how reflection surveys can help faculty improve the instructional quality of their courses and meet the needs of their students. The

research on the effectiveness of reflection, as a learning strategy, is expansive and consistent. Fosnot (1996) argues that reflection is the driving force of learning. Jonnasen and Reeves (1996) define reflection as deliberate and careful thinking that enables us to make sense of our experiences. And Boud, Keogh and Walker (1985) suggest that reflection is an interpretative process of abstracting meaning in an effort to understand reality.

While research argues for the importance of reflection, in our experience, most students need some structure and encouragement to engage in reflection and that is where reflection surveys come in. Our students benefit from reflection surveys because many of the questions we ask require them to carefully think about their learning experiences, how those experiences link to their prior experiences, and what additional questions or concerns they have about the new information they are trying to learn.

Reflection surveys also help us. For instance, we, as faculty, benefit from reflection surveys in that they provide data with which to engage in continuous improvement, perhaps even "real time" improvement. Given these benefits, we are now going to describe how we use reflection surveys in our courses.

How We Use Reflection Surveys

In our online courses, we administer a four to six item reflection survey to our students at the end of each unit; each unit is two weeks long. See Figure 1 for an example of what one looks like. While we currently use the Google Docs form tool (which is shown below in Figure 1) to administer these surveys, we have also used Surveymonkey in the past. In fact, essentially any survey tool could work. In our case, we strive to find a tool that is easy to use and enables students the option to provide anonymous feedback if they want. We have experimented with making these reflection surveys optional as well as assigning points. In our experience, we get a much better response rate (and therefore better data to improve our courses) if we assign points for this assignment while at the same time giving students the ability to provide anonymous feedback. Students in our courses currently earn 25 points for completing each survey. Students have approximately three days to complete the survey once it is administered.

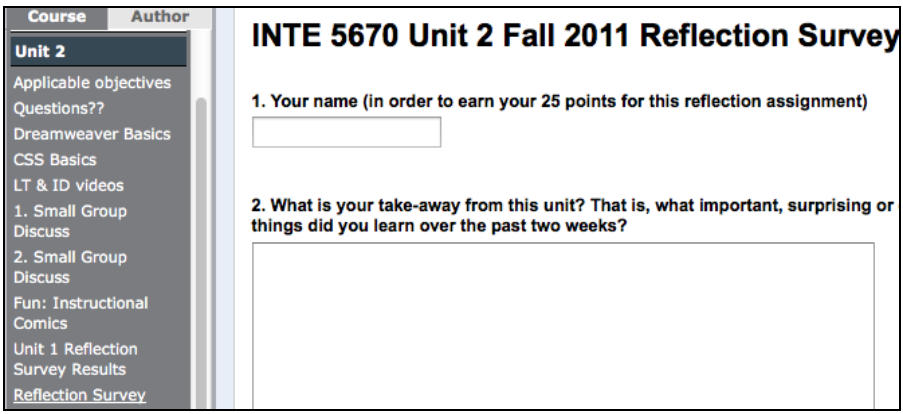

Figure 1. An example of a reflection survey

The questions we include in the reflection surveys are different for each unit. We typically include a few questions based on the unique discussions, assignments, and / or problems in the current unit. However, we also always include the following

question: "Additional comments, questions, concerns, issues, suggestions for improvement?"

The answers to the questions we ask provide us with the data with which to improve the course and customize it to meet the needs of the students in the course. Additionally we strive to make this a 360 degree feedback loop. So, after students answer the questions on each reflection survey, we compile all of their answers anonymously to each question and respond to themes and patterns, as well as individual answers. We then post our responses to their feedback in the course shell for every student to read and comment on if they want (see Figure 2). We have found this to be a very effective way to (a) be "real" with our students and have informal exchanges with them, (b) elaborate on course topics, (c) clarify misconceptions, (d) calm fears and anxiety, and (e) ask them for suggestions on what we can do to help them be successful in the course.

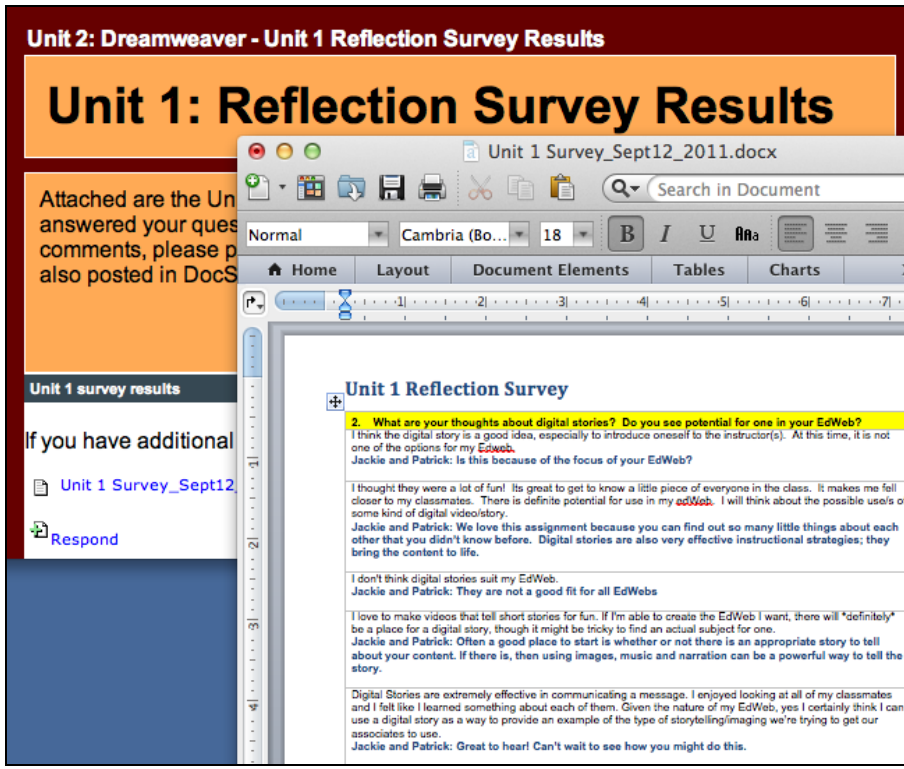

Figure 2. An example of a reflection survey results document with our responses posted as an attachment in a threaded discussion.

Another benefit of these end-of-unit reflection surveys is that students tell us that they get a sense of community and camaraderie in reading the results of the reflection surveys. In other words, the reflection survey results documents seem to help students feel that they are a part of a group or community of learners.

Tips on Using Reflection Surveys

So based on our experience using reflection surveys, we recommend the following:

- **Identify Timing of Surveys Ahead of Time:** If possible, decide how often and therefore how many reflection surveys you want to administer during a given semester. While we administer surveys every unit, you might decide to administer yours only 2-3 times during a semester.

- **Identify Purpose of Surveys:** Identify the focus of your reflection surveys. In other words, do you simply want to check-in to see if students are happy, struggling, and so forth or do you want to use your reflection surveys much like we have in which you inquire not only about students' satisfaction but also about how they are acquiring specific knowledge.

- **Consider the Power of Anonymity:** Decide whether you want the surveys to always be anonymous, never be anonymous, or to give students the choice on whether they want to submit their feedback anonymously. Since we assign points, we ask students to share their name with us but we do not include any student names in the results document we share with students. We think it is important for us to have student names for the occasional situation where we want to contact a person individually to work on a problem they expressed or a misconception they described in the survey. However, because we use Google Docs to administer the survey and do not make the first question about their name a required question, students always have the ability to submit feedback about the course anonymously.

- **Consider Adding Points:** Decide whether or not you will assign points to the survey or not. If you are making the surveys completely anonymous, it is basically impossible to assign points (unless you give everyone points regardless of whether they completed the survey or not). If you are going to administer reflection surveys each week or unit, we highly recommend assigning points for the assignment because in our experience students take it more seriously and their answers are more thoughtful.

- **Explain the Purpose of the Reflection Surveys in the Syllabus:** Clearly explain what the reflection surveys are, how they will be used, when they will be administered, and if points are associated with them.

- **Be Consistent:** Once you decide when and how often you will administer the reflection surveys, be sure to follow through on it. Also strive to be consistent with how you handle the surveys. For instance, if you plan to make the results of the survey's public in the course shell, be sure to always do that. We try to post the results within five days of the close date on the survey and we post the results in a threaded discussion so students can comment or ask additional questions.

- **Ask Qualitative and Quantitative Questions:** While quantitative questions can provide quick and easy feedback—especially in a tool like Google Docs

where the form tool will calculate the results for you, we find that we get the most useful and thoughtful information through open-ended qualitative questions. While they take longer to read and summarize, we often find we get results we never expect. Here are some open-ended questions we ask:
--What is the most important thing you learned in this unit?
--What three words best describe your thoughts about this course so far?
--What did you find surprising or interesting in the small group discussions?
--What questions or concerns do you have about . . . .
--How are you feeling about (name of major assignment)? What can we do to help?
--How will you apply (name of chapter or article) to your professional life?
--What did you learn from the (name of assignment)?

Concluding Thoughts

We have been using reflection surveys in our online courses for a number of years now. Asking students for their feedback, then responding to their feedback, and then sharing our responses to their feedback has been one of the single best things we have done in the courses we teach. We highly recommend that you begin using them in some way in your online courses. While they add a little work, we are confident you won't be disappointed!

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Bios

Jackie Dobrovolny, Ph.D. is currently a Clinical Professor, teaching online graduate courses, in the Information and Learning Technologies (ILT) program at the University of Colorado Denver (UCD). Her dissertation focused on how adults learn from online, self-paced instruction and she replicated her dissertation research methodology with the Mountain Plains Aids Education and Training Center (MPAETC), which is part of UCD. She also taught online for Capella University. Jackie thinks one of the important issues in online instruction is whether the instruction is group-paced, like the courses she and Patrick co-teach, or whether the instruction is self-paced, like the preceptor training course she recently developed for nurses in health care facilities throughout the US.

Patrick R. Lowenthal is an Academic Technology Coordinator at CU Online at the University of Colorado Denver. He is also a doctoral student studying instructional design and technology in the School of Education and Human Development. His research interests focus on instructional communication, with a specific focus on social and teaching presence. He also has a MA in Instructional Design and Technology as well as a MA in the Academic Study of Religion.

Part 3

Emerging Tools and Applications

Android

www.android.com

Free, open source mobile platform

what is it?

Mobile phones, like computers, run an operating system. Android is Google's attempt to provide a powerful, low-cost mobile phone operating system that can compete with devices such as the Blackberry or the iPhone. Unlike some of its competitors, the Android operating system is open source which allows mobile phone companies to modify the system to their liking. This means that there are many different versions of the Android OS. Having an open source platform means that Android-powered devices such as the Droid, The My Touch and the Nexus One are available on a variety of carriers at a competitive price.

educational use?

For the most part, an operating system is an operating system. Educators should not have to worry about the platform they use to run their applications. In the case of Android, Google makes it clear that the future does not belong to the iPhone, the Blackberry or any other system. The educational use of Android or mobile computing in general has yet to be realized. However, futurists predict that mobile computing—whether with phones or tablets—is one of the next big trends in education.

pros & cons?

Every phone platform has its proponents and detractors. As a Google phone system, Android comes with built-in integration with Google tools—such as Gmail, Google Maps and Google Docs. However, multiple versions of Android means that many phones aren't running the latest OS.

what's it cost?

New Android-based phones typically run from $150 and up, depending on the mobile carrier and phone contracts

alternatives?

iOS
Windows Phone 7

resources?

http://www.android.com

Ardour

www.ardour.org

A digital audio workstation

what is it?
Ardour is a digital audio application that allows you to record, edit and mix multi-track audio. You can produce your own CDs, mix video soundtracks, or just experiment with new ideas about music and sound. Ardour's capabilities include: multichannel recording, non-destructive editing with unlimited undo/redo, full automation support, a powerful mixer, unlimited tracks/busses/plugins, timecode synchronization, and hardware control.

educational use?
Ardour is a great tool to record and edit a lecture for class. Students can also use Ardour tool to record themselves for a presentation or class assignment.

pros & cons?
Ardour is currently only supported on OSX and Linux platforms.

what's it cost?
Ardour is free, but donations are recommended.

alternatives?
Notable competitor's of Ardour are Audacity and Apple's GarageBand.

resources?
Ardour Support is located at: http://ardour.org/support

Aviary

www.aviary.com

Edit images and audio online

what is it?
According to its website, Aviary is "a suite of powerful creative applications that you can use right in your web browser". From image editing, to applying various effects, to even editing audio, Aviary is a great imaging and audio editing suite of applications.

educational use?
Aviary is so versatile that faculty, students and staff can utilize this as a teaching, learning and resource tool. Whether you want to create a quick banner for your online course or create a simple audio announcement, Aviary is the tool for you.

pros & cons?
Aviary offers similar functionalities as other imaging and audio editing software, but for free! One possible drawback of Aviary is that it is a web-based application and therefore you must have access to the Internet to use it.

what's it cost?
Aviary offers a free and a premium plan. The Premium Pro Plan costs $24.99 per year.

alternatives?
Picnik (http://www.picnik.com/) is a notable competitor of Aviary, however, Picnik cannot edit audio or create vector-based images.

resources?
Aviary Tutorials
http://aviary.com/tutorials
http://aviary.com/userwiki

Blabberize

blabberize.com

Animate a picture with sound

what is it?
Blabberize allows you to upload a photo, add sound/recorded message and then animate the mouth so that it appears that the image is talking.

educational use?
Blabberize is a fun tool that can be used as an ice breaker during the first week of class. Students and faculty can select a picture of a person, animal, avatar or any other object with a mouth, record a message and then Blabberize it—that is, make the mouth move in the picture to say a recorded message. The topic could range from a favorite class, most memorable teacher, or a favorite color. Blabberize could also be a fun way to provide a weekly overview in an online course.

pros & cons?
The best thing about Blabberize is its overall simplicity and ease to use.

what's it cost?
Blabberize is free to use

alternatives?
Notable competitors are Voki and Xtranormal.

resources?

Cacoo

cacoo.com

Collaboratively create diagrams online

what is it?
Cacoo is a free online drawing tool. People can create such things as mind maps, site maps, and network charts with Cacoo. Cacoo offers multiple users the ability to collaborate on diagrams together in real time. Cacoo also offers users the ability to comment on diagrams and embed them in other blogs or websites.

educational use?
Cacoo can be used by faculty and/or students to create graphical organizers and other types of diagrams or mind maps.

pros & cons?
Perhaps the best part of Cacoo is how easy it is to create diagrams and mind maps as well as the ability to collaboratively create diagrams that then can be embedded into webpages.

what's it cost?
It's free to use. But they also offer paid accounts with additional features.

alternatives?
Some alternatives are Mindmeister (http://www.mindmeister.com), Microsoft Visio (http://office.microsoft.com/en-us/visio/), Bubbl.us (http://bubbl.us), DropMind (http://web.dropmind.com), and Inspiration (http://www.inspiration.com).

resources?
Cacoo Video
http://vimeo.com/7502521

Chrome

www.google.com/chrome

Free lightweight and fast web browser

what is it?

Chrome is a cross platform web browser developed and launched by Google in 2008. It has begun to set the benchmark for its speed in processing web pages and has been noted for its unique minimalistic interface. A unique feature of Chrome is the "omnibox." The omnibox keeps the interface simple by merging the search box (web, bookmarks and history) and address box into one.

educational use?

Google Chrome integrates well with web 2.0 apps like, Delicious, Picnik and Flickr as well as the Google suite of applications such as Docs, Gmail and Blogger. Chrome has a feature allowing users to open web pages in an "incognito" window. This window displays web pages without saved cookies and login information as if the page was opened on a separate computer. This feature can be used for testing applications and websites without being logged in.

pros & cons?

Google Chrome is the highest performing web browser around and still manages to maintain a light footprint on your systems resources. Its innovative interface and features will change the way you use the Internet. Chrome is optimized for standards compliant websites and can perform poorly on nonstandard compliant learning management systems such as BlackBoard and eCollege.

what's it cost?

Free to use.

alternatives?

Alternative web browsers include Microsoft's Internet Explorer (http://www.microsoft.com/nz/windows/internet-explorer/default.aspx), Mozilla Firefox (http://www.mozilla.com/en-US/firefox/firefox.html), Opera (http://www.opera.com), and Apple's Safari (http://www.apple.com/safari/).

resources?

Chrome Introduction Comic
http://www.google.com/googlebooks/chrome/index.html

Chrome Help Documentation
http://www.google.com/support/chrome/?hl=en

Chrome Introduction Video
http://www.whatbrowser.org/en

Clicker

www.clicker.com

An online TV Guide for Web Video

what is it?
Want to know what's on TV? Look at the TV Guide. Want to know what's showing online? Well, checkout clicker.com. This meta-guide for video on the Internet classifies shows into genres and provides an easy to use search engine. Is last week's Nightline online? Miss an episode of the Daily Show and want to see if it's posted? Search clicker.com, get your answer and even watch the program on their site.

educational use?
Looking for some video about Frank Lloyd Wright? A quick search reveals a Ken Burns produced PBS documentary. Like to show some political commentary on the Obama presidency? There are scores of videos available from both sides of the aisle.

Because the service indexes videos from free sources like Hulu as well as paid sources, such as Netflix and Amazon, it is easy to find out what's available to your students.

Clicker.com makes finding video relevant to your courses a breeze.

pros & cons?
Having a search engine focused on commercially produced video is a great boon to faculty looking for professional online video to assign to students.

Of course, many times, the search comes up blank. Not everything you'd like to watch is available online.

what's it cost?
The service is free. But some movies that are indexed are from pay sources.

alternatives?
Google or Bing allow for searching of video assets.

resources?
About Clicker.com
http://www.clicker.com/about/

FAQ
http://www.clicker.com/faq/

Createdebate

www.createdebate.com

Organize online debates

what is it?
Pick a question and choose two sides. In a discussion forum-like system, participants debate the pros and cons of the question, vote each others' comments up and down, and cast votes for the side that they think makes the most sense.

Visual and easy-to-use, this website makes debating controversial subjects easy to start and simple to manage.

educational use?
While plenty of online discussion forum tools work well for stimulating conversation, createdebate.com's streamlined system helps visually demonstrate how sides present their cases, keeps track of how the conversation is going and makes it easy to find out what a group of people think.

In the paid version, instructors can also add grades to participation and manage classroom-focused conversations.

pros & cons?
The free version provides both public and private options. Private options require that students create accounts and the instructor manually adds students to the debate. Public debates are open to anyone on the site to view and participate.

While the paid version does not integrate with course management systems, it does provide additional tools useful for managing class-level debates.

what's it cost?
The basic service is free. A $99 a year account allows an instructor to manage up to a 250 students in a debate community.

alternatives?
Any online discussion forum can be set up to facilitate debates.

resources?
http://www.createdebate.com/tour

Doodle

www.doodle.com

Coordinate meetings with ease

what is it?

Ever need to find the best day to schedule a meeting with a bunch of different people? Need to decide where to go to lunch with a big group? Want to make sure everyone doesn't bring meatloaf to the next potluck? Doodle provides a simple tool for setting up polls that let people make selections and display the results back to the group.

educational use?

Whether coordinating meetings with faculty, administrators or students, it takes only a few minutes to set up a Doodle poll. Email the poll link to the participants and they select the days that work for their schedule. Once everyone has replied, you simply look for the column total with the most available participants and select that day.

The same system would work for selecting what to bring to a group picnic to doling out topics to students. Simply set up a poll and have participants reply. They can type in what they will bring or the subject for a class report. As new participants come to add to the poll, they can see what has already been taken.

Fast, flexible, and free, Doodle is an elegant solution to a tricky problem of coordinating groups.

pros & cons?

Doodle works so well at what it does, that eventually you will find you want it to do things that it doesn't. But if you can deal with its straightforward approach to group polls, then there's nothing not to like about this tool.

what's it cost?

It's free to use but they now offer paid accounts with additional features as well.

alternatives?

When all participants are Exchange users, the Outlook tools work well to coordinate meetings.

Google Forms works well when coordinating input from a group of people, but it is not as effective at coordinating meetings.

Whenisgood.net is another application for scheduling meetings.

resources?

About Doodle
http://www.doodle.com/about/about.html

Dropbox

www.dropbox.com

Sync your files online and across your computers

what is it?

Do you ever struggle managing files across multiple computers? Well, Dropbox might be the answer to your file management problems. Dropbox is an online file storage application that synchronizes files across multiple computers. So this is how it works. Setup an account at www.dropbox.com and then download and install the Dropbox application on each computer you regularly use. From there, all of the files placed in the Dropbox are automatically stored (and synchronized) online on Dropbox's secure server. The files can then be accessed from any computer, mobile device , or even at the Dropbox website. This gives you the ability to access the files you need at any time, from any computer. Say goodbye to thumb drives!

educational use?

Some educational benefits of Dropbox are that it enables faculty and students the ability to access their files (whether the files are resources or assignments for a course) as well as an easy way to share large files (e.g., large PowerPoint presentations or videos) that cannot easily be emailed due to their size.

pros & cons?

The best thing about Dropbox is how easy it works. There are other alternatives out there, but none of them seem to work as seamlessly across PC's and Mac's as Dropbox does. Dropbox also keeps 30 days of history for all your files so you can essentially go back in time and undelete or undo changes to files. Perhaps its biggest drawback is its pricing structure.

what's it cost?

The basic account is free and comes with 2gb of storage. However, if you want more storage than that, you will need to sign up for either a Pro50 account (which comes with 50gb of storage) for $9.99/month or a Pro100 account (which comes with 100gb of storage) for $19.99/month.

alternatives?

There are a number of alternatives to Dropbox. Some alternatives include, Skydrive (http://skydrive.live.com), box (http://boxnet), and SpikerOak (http://spideroak.com).

resources?

Dropbox Tour
http://www.dropbox.com/tour

Gimp

www.gimp.org

Manipulate images for free

what is it?
Gimp is an open source, free image manipulation program. Its primary purpose is to retouch and edit images. Gimp can also be used to create basic animated images and offers many of the same features as higher end software such as Photoshop.

educational use?
Since Gimp can be run on multi-platforms, faculty, students, and staff can utilize this as a teaching, learning, or research tool. Gimp gives you all the benefits of an easy to use editing tool you can use to jazz up an image for a class project, a course banner for an online course, or simply your favorite family photo, but also offers more advanced editing features.

pros & cons?
This very powerful tool gives you all the benefits and features of a full-packaged editing software for free. From adding multiple layers, visual effects, palette selection, this tool has become quite a popular tool even among professional users.

what's it cost?
Free to use.

alternatives?
A notable competitor of Gimp would be Adobe Photoshop due to its increase functionality.

resources?
User Manual
http://www.gimp.org/docs/

Tutorials
http://www.gimp.org/tutorials/

Google Calendar

www.google.com/calendar

A free time-management application

what is it?

Google calender is a free application that allows users to create and share events with each other. However, you must have a Google account to use Google Calendar. Since it is a web-based application, all events scheduled are stored online. This enables you to access your calendar and events from any location. You can also create customizable reminders so you will never miss an important event again!

educational use?

Faculty and students can easily schedule and monitor events with each other—whether that be important classes, guest lectures, or even when certain assignments are due. Google calendar can also be accessed on any smart phone thus making it more accessible than ever.

pros & cons?

Google Calendar is free to use and has the ability to sync with other email applications such as Microsoft Outlook, Apple iCal and Mozilla Sunbird. Another benefit of using Google Calendar is that you can share your schedule with other Google Calendar users.

what's it cost?

Free to use.

alternatives?

A notable competitor is Windows Live Calendar.

resources?

Calendar Help
http://www.google.com/support/calendar/?hl=en

Google Goggles

www.google.com/mobile/goggles

Visual searches on your mobile phone

what is it?

Goggles turns Android-based or iPhones into visual search engines. Simply point your phone's camera at a book, take a picture, and Google will return search results based on the book title—including online availability and reviews. Goggles can also help identify landmarks, works of art, logos and business cards.

educational use?

The future looks bright for visual search. Sending students to an art museum with a Goggles-powered device can turn the trip into an active experience. When looking at a painting, they can easily find information about the work on the Web.

pros & cons?

Even Google admits that Goggles is in its early stages. The search often cannot recognize simple things. But as the capability grows, expect to see widespread use of search based on images, instead of just text.

what's it cost?

Free to use.

alternatives?

http://www.bing.com/visualsearch

resources?

A helpful video demonstrating the application:
http://www.youtube.com/watch?v=Hhgfz0zPmH4

Google Sites

sites.google.com

A free and easy way to create and share webpages

what is it?

Google Sites is a free website creation tool that enables users to create a website with a single click of a mouse. Webpages can be created from dozens of pre-built templates. Their website boasts that "Google Sites is powerful enough for a company intranet, yet simple enough for a family website." Some of the features of Google Sites include the ability to easily use Google Analytics to track your sites statistics, the ability to control who has access to your site, and finally the ability to easily add other Google resources (e.g., Google Calendar, Google Docs, and so on) and widgets.

educational use?

Google Sites can be used to set up a course website as well as individual student websites or group projects. But faculty could also use Google Sites to setup a personal website to promote their scholarship.

pros & cons?

The greatest thing about Google Sites is how easy it is to create a website. You can also set up your own domain (for a small fee) so that Google Sites essentially becomes the content management system of your personal website. Some drawbacks to Google Sites are that you do not have full control to edit the CSS and HTML on your web pages and there are storage limits.

what's it cost?

It's free to set up and use an individual account. However, there is also Premier Edition that companies can license.

alternatives?

Some alternatives are Weebly (http://www.weebly.com) and Webs (http://www.webs.com).

resources?

Introduction to Google Sites
http://www.youtube.com/watch?v=tkTGrOcFiz0&feature=player_embedded

Google Voice

www.google.com/voice

Enhance the capabilities of your phone

what is it?
Google Voice is a telecommunications system that organizes user's phone numbers and voice mail into one manageable web interface. Google Voice can answer, forward, screen, record and transcribe phone calls. Google Voice also offers users the option to choose a "master" phone number that can be set to ring their home, work, mobile or any other phone without revealing those numbers.

educational use?
Using your Google Voice "master" number on a syllabus is a great way to control when and what phones ring when your students call. It also has full functioning voicemail that can be emailed to you as an audio file or a transcribed format.

pros & cons?
Google Voice puts users in control of their phones. It lets them decide when they want their home, mobile, office, and other phones to ring. Features allowing users to decide to answer or send a call to voicemail are great. Users can also configure the system to filter phone numbers allowing certain calls to ring to a selected phone or go to voicemail.

what's it cost?
Free to use. Rates apply for international dialing.

alternatives?
VoxOx (http://www.voxox.com) and 3Jam (http://3jam.com) are two alternatives.

resources?
Google Help Support
http://www.google.com/support/voice/bin/topic.py?hl=en&topic=16497

Feature Videos
http://www.youtube.com/googlevoice

Jolicloud

www.jolicloud.com

Linux-based operating system for netbooks

what is it?
Jolicloud is a linux-based operating system design for netbooks. It is a free application that allows users to run various web apps over the cloud network.

educational use?
As more universities around the world face budget cuts, Jolicloud could be the solution to bring old computers back to life and save thousands of dollars. Among other things, running apps off the cloud can enable users to tap into web-based resources—thus allowing for a faster boot-up and increased computer and network performance.

pros & cons?
While cloud computing is still a relatively new concept, storing apps and data on the cloud has huge advantages. However, at the same time, many people are skeptical with storing personal information on the Web.

what's it cost?
Free to use.

alternatives?
Google Chrome OS, another cloud-based operation system, is an alternative to Jolicloud.

resources?
Jolicloud Support
http://www.jolicloud.com/support

Lulu

www.lulu.com

Self-publish!

what is it?

Everything might be going digital, but Lulu gives you the chance to turn your digital bits into hardcopy. As a print-on-demand publisher, Lulu lets you create and publish paperback and hardcover books in quantities from a single copy up to hundreds of books.

educational use?

From printing out course texts to publishing student work, the possibilities seem limitless. Special products such as picture books allow you to produce full-color books that collect student work or other research material. Many academic presses such as Carnegie-Melon's etc press use Lulu to produce and publish their line of books. In fact, the CU Online Handbook was published on Lulu.

Students can publish hardbound portfolios in small quantities to share their work in a polished package.

Because you can print on demand—it usually takes a week or two to get books—you can easily share printed material in a professional format.

pros & cons?

Even though Lulu makes it easy to publish books, it still can take a lot of work. Creating the content, editing, and content layout can take a significant amount of time. For those who want to spend the money, Lulu offers a variety of services to help expedite your publication.

An online store makes it easy to sell your final work. Lulu lets you determine the mark up—setting the price, and the profit margin that works for you.

One subtle con: Some people perceive on-demand publications a lower quality form of publishing. Of course, in the end, the quality of the content matters most.

what's it cost?

The cost of each book varies based on book size, length, binding style, number of books ordered. But in general, prices are about $7-$10 per book of average length.

alternatives?

Two alternatives are iUniverse (http://www.iuniverse.com) and CafePress (http://www.cafepress.com).

resources?

http://www.lulu.com/en/about/demo.php?cid=en_tab_demo

Mozy

www.mozy.com

Automated online backups

what is it?

As computer hard drives have grown in size, the amount of information we store on our machines grows. From important documents, emails and photos of our families, our computer's storage is filled with stuff we don't want to lose. Online backup services such as Mozy simplifies storage and backup of your desktop and laptop computers for a low monthly cost.

educational use?

Not sure where to keep years of research data, articles, and lecture material? Setting up a Mozy account insures that in a worst case scenario (e.g., an unrecoverable hard drive crash or the loss of a laptop computer) that you do not lose all of your valuable files.

Encouraging students to back up their machines is a good practice as well. Don't let your graduate students end up with a thesis or dissertation that disappears with a smoking computer.

pros & cons?

With cloud computing becoming more popular, there are a variety of places to store data. Flickr can easily store your images, for example, and Google Docs allows users to upload and store any document type. What Mozy provides is a behind-the-scenes process that can quietly back up everything on your computer without any intervention on your part.

One important point—Mozy files are backups. If you delete a file on your computer, Mozy deletes it from the backup. Backups only mirror what's on your computer. Also, keep in mind that the initial backup can take hours (if not days) as gigabytes of data must transfer from your computer to the Mozy server.

what's it cost?

The service is free for 2GB of storage. Currently Mozy offers two types of paid back up plans: 50gb for $5.99 a month or 125gb for $9.99 a month.

alternatives?

Two alternatives to Mozy are Carbonite (http://www.carbonite.com) and SOS Online Backup (http://www.sosonlinebackup.com).

resources?

For a review of several services see:
http://www.pcmag.com/article2/0,2817,2288745,00.asp

OpenOffice

www.openoffice.org

A free alternative to Microsoft Office

what is it?
OpenOffice is an open source application suite of tools. It has full-featured set of office applications for creating word processing documents, spreadsheets, and presentations. It is available for free and serves as a good alternative to popular applications like Microsoft's Word, Excel and PowerPoint.

educational use?
For faculty and students that do not have access to Microsoft Office, OpenOffice is a free alternative and can easily read documents created in Microsoft's suite.

pros & cons?
The best part of OpenOffice is that it is free. Another benefit of OpenOffice is that an average user would barely be able to tell the difference between many of OpenOffice applications and Microsoft's counterparts.

what's it cost?
Free to use.

alternatives?
There are several web-based alternatives to Open Office including Google Docs (http://docs.google.com) and Zoho (http://www.zoho.com).

resources?
Open Office Support
http://support.openoffice.org

Posterous

posterous.com

Blogging as easy as emailing

what is it?

Posterous is a blog but unlike other blogs, Posterous enables you to post to your blog by email. Simply send photos, videos, and files to post@posterous.com and you will instantly receive an email reply with the address to your new "posterous" (blog).

educational use?

Posterous, like any blog, has a number of educational uses ranging from an easy way to self publish all the way to having your own class website. Checkout the 2009 CU Online Handbook for other educational uses of blogs:
http://www.ucdenver.edu/academics/CUOnline/FacultyResources/additionalResources/Handbook/Documents/Chapter_6.pdf

pros & cons?

Though lacking several advanced features found on other blogging platforms, Posterous is "dead simple."

what's it cost?

It's free.

alternatives?

Popular alternatives to posterous are Blogger (http://www.blogger.com), Live Journal (http://www.livejournal.com), WordPress (http://www.wordpress.com), and Tumblr (http://www.tumblr.com).

resources?

FAQ
http://posterous.com/faq/

Tutorials
http://howdoi.posterous.com

SlideShare

www.slideshare.net

Upload and share presentations with the world

what is it?

SlideShare, according to their website, is a "business media site for sharing presentations, documents, and pdfs." So what does that mean? Well, basically once you set up an account, you can upload your PowerPoint presentations (or documents and pdfs) and share them with the world. You can even upload and link slides with audio to create slidecasts as well as embed YouTube videos into presentations. SlideShare also generates embed code which enable users to embed their own or others' presentations, documents, or pdfs into web pages. But SlideShare also has a vibrant professional community in which people download, favorite, comment, and follow others in the community. In many ways, SlideShare is essentially YouTube for PowerPoint presentations, documents, and pdfs.

educational use?

SlideShare has a number of educational uses and benefits. First, it serves as one place for faculty and students to upload course materials. So rather than uploading course materials each semester into each shell in your Learning Management System (and as a result needlessly taking up server space), SlideShare enables you to simply add the embed code to each course you are teaching. Second, embedding a SlideShare presentation into your courses enables students to access a flash-based version of your presentation, which enables users regardless of operating system or presentation software to view the same presentation (assuming they have the flash plug-in installed in their browser). Third, by posting your course materials online, you are able to contribute to the larger open education movement that aims to make educational materials open and available. Finally, posting your course materials online helps eliminate the need to make copies to lug to class and hand out.

pros & cons?

The best things about Slideshare are the ability to store all your presentations in one location, the ability for you or others to embed and distribute your presentations, and the ability to make your work available to a larger audience (e.g.,. you can track not only the total number of views but your presentations will also come up on a Google search).

what's it cost?

It's free to use but there is a paid version as well.

alternatives?

Some alternatives to SlideShare include Slideboom (http://www.slideboom.com), SlideRocket (http://www.sliderocket.com/), and authorStream (http://www.authorstream.com/) to name a few.

resources?

SlideShare Quick Tour – Summary of features & capabilities
http://www.slideshare.net/AmitRanjan/quick-tour

Wordle

www.wordle.net

Create word clouds with ease

what is it?

Wordle, according to its website, is "a toy for generating 'word clouds' from text you provide." This simple to use application enables users to visually depict a cloud of words with its association.

educational use?

There are a number of educational uses of wordle ranging from visually displaying data from a research project to having students brainstorm to adding exciting diagrams like text-based concept maps to your online course or PowerPoint presentations. But if you want to read about some exciting uses of Wordle, check out Joni Dunlap's chapter on Wordle in 2009 CU Online Handbook:
http://www.ucdenver.edu/academics/CUOnline/FacultyResources/additionalResources/Handbook/Documents/Chapter_10.pdf

pros & cons?

Wordle is free and easy to use. Perhaps the only drawbacks to wordle are limitations with saving, editing, and sharing Wordle word clouds. Another drawback could be the overuse of word clouds could begin to bore students overtime.

what's it cost?

Free to use.

alternatives?

WordItOut (http://worditout.com) and Tagul (http://tagul.com) are two alternatives to Wordle.

resources?

Wordle Tutorial
http://www.youtube.com/watch?v=xhL5D9nz5aI

WordPress

wordpress.com

Start a Blog

what is it?
WordPress.com is a service that provides users with blogging tools utilizing the WordPress blog platform. After a quick registration process, one can be sending their thoughts to the world on a full-featured blog in minutes.

educational use?
WordPress, like Posterous or any blog, has a number of educational uses ranging from an easy way to self publish all the way to having your own class website. Checkout the 2009 CU Online Handbook for other educational uses of blogs: http://www.ucdenver.edu/academics/CUOnline/FacultyResources/additionalResources/Handbook/Documents/Chapter_6.pdf

pros & cons?
With more than 70 themes and several "widgets" for connecting things like Twitter, Flickr, and Delicious, WordPress.com makes it easy for users to create and customize their blog. Its features are limited compared to the massive customizability of a self-hosted version of WordPress.

what's it cost?
The basic service is free. WordPress.com offers additional features such as video, custom CSS, and ad removal are available for a fee.

alternatives?
Popular alternatives to are Blogger (http://www.blogger.com), Live Journal (http://www.livejournal.com), and Tumblr (http://www.tumblr.com).

resources?
WordPress.com Support
http://en.support.wordpress.com

User Forum
http://en.forums.wordpress.com

Xtranormal

www.xtranormal.com

Create cartoon animations

what is it?

Xtranormal's tagline is, "Create movies in real time on your computer." But the tagline fails to mention just how easy it is! Xtranormal is an easy-to-use, Web-based tool that has you point and click your way to rich cartoon animations. Type in a script, select characters, choose settings, camera angles, motions, and special effects. Click the "action" button and Xtranormal does the rest. Within minutes, you can create humorous animations ready to embed in your online courses and other webpages.

educational use?

Faculty have found making an Xtranormal movie can help break up the dull text of an online course. For instance, you can cut and paste a course announcement into Xtranormal, spend a few minutes customizing the movie, and then embed the result in a course. Now the "What's new this week?" becomes a humorous monologue delivered by a robot, superhero, or even a stuffed animal. Animate a course or section introduction, complete with dance steps and bows. Have students complete subject reports in the tool, adding a little fun to a serious assignment. Instructors using the tool report that students enjoy this break from the "normal" day-to-day of a course. See Chapter 14 for more on how one faculty uses Xtranormal.

pros & cons?

While the system is remarkably easy to use, it does take some time to tweak videos to get them ready for prime time. Also, while the system offers a wide variety of customizations, it is not sophisticated enough to actually model or otherwise act out instructional material. Also, be sure to preview your productions. The system's text-to-speech conversion can sometimes create amusing and unexpected moments in your movies.

what's it cost?

It's free to use, but you do need to sign up for an account to make movies.

alternatives?

While there are a variety of animation tools, nothing features the ease and quality of Xtranormal. Voki is one possible alternative (http://www.voki.com).

resources?

Tutorials
http://www.xtranormal.com/state_tutorials

Part 4

Resources

A Review of Selected Timeline Applications

Patty Meek

Capzles

http://www.capzles.com

Capzels is a timeline like presentation of multimedia content. It let's you create a timeline of 'floating photos' – like a photo documentary. It doesn't appear to provide much space for text to describe the images. There is potential for multiple, but separate, timelines. It is free to use.

xtimeline

http://www.xtimeline.com

Xtimeline is a straight forward web-based timeline application. It provides a single axis with years, months, etc. It also provides the ability to 'layer' events of a sort; kind of like 'bullets' overlapping. It is free to use.

Read•Write•Think Interactive Timeline

http://www.readwritethink.org/files/resources/interactives/timeline/index.html

This is a basic timeline for younger students. It enables students to type in as they go. There is not currently a way to save them. You can only print them.

TimeRime

http://www.timerime.com

TimeRime is one of the more advanced timeline applications available. You can overlap events, post pictures, and zoom into window to provide information about the pictures! There is a fee to use TimeRime.

Dipity

http://www.dipity.com

Dipity is another fully functioning interactive timeline application like TimeRime. Dipity is free to try but you might shortly need to upgrade to a paid account. According to its website, "users can create, share, embed and collaborate on interactive, visually engaging timelines that integrate video, audio, images, text, links, social media, location and timestamps."

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